





AT Series

AT-A1600, ST-A1600, ST-A800, ST-A400, ST-S800, ST-S400

Digital Video Recorder

User's Manual (Rev. 2.0)

	<div style="background-color: black; color: white; padding: 5px;">WARNING</div> <div style="border: 1px solid black; padding: 5px;">RISK OF ELECTRIC SHOCK DO NOT OPEN</div>	
<p>WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>		



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and Maintenance (servicing) instructions in the literature accompanying the appliance.

COMPLIANCE NOTICE OF FCC:

THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE, IN WHICH CASE USERS WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT THEIR OWN EXPENSE.

CAUTION: CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS CLASS OF DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS.

The information in this manual is believed to be accurate as of the date of publication. The information contained herein is subject to change without notice. Revisions or new editions to this publication may be issued to incorporate such changes.

Important Safeguards

<p>1. Read Instructions All the safety and operating instructions should be read before the appliance is operated.</p> <p>2. Retain Instructions The safety and operating instructions should be retained for future reference.</p> <p>3. Cleaning Unplug this equipment from the wall outlet before cleaning it. Do not Use liquid aerosol cleaners. Use a damp soft cloth for cleaning.</p> <p>4. Attachments Never add any attachments and/or equipment without the approval of The manufacturer as such additions may result in the risk of fire, electric shock or other personal injury.</p> <p>5. Water and/or Moisture Do not use this equipment near water or in contact with water.</p> <p>6. Accessories Do not place this equipment on an unstable cart, stand or table. The equipment may fall, causing serious injury to a child or adult, and serious damage to the equipment. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.</p> <p>7. Power Sources This equipment should be operated only from the type of power source Indicated on the marking label. If you are not sure of the type of power, please consult your equipment dealer or local power company.</p> <p>8. Power Cords Operator or installer must remove power and TNT connections before handling the equipment.</p> <p>9. Lightning For added protection for this equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the equipment due to lightning and power-line surges.</p> <p>10. Overloading Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.</p> <p>11. Objects and Liquids Never push objects of any kind through openings of this equipment as They may touch dangerous voltage points or short out parts that could Result in a fire or electric shock. Never spill liquid of any kind on the Equipment.</p> <p>12. Servicing Do not attempt to service this equipment yourself. Refer all servicing to qualified service personnel.</p>	<p>13. Damage requiring Service Unplug this equipment from the wall outlet and refer servicing to qualified service personnel under the following conditions: A. When the power-supply cord or the plug has been damaged. B. If liquid is spilled, or objects have fallen into the equipment. C. If the equipment has been exposed to rain or water. D. If the equipment does not operate normally by following the operating instructions, adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the equipment to its normal operation. E. If the equipment has been dropped, or the cabinet damaged. F. When the equipment exhibits a distinct change in performance — this indicates a need for service.</p> <p>14. Replacement Parts When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.</p> <p>15. Safety Check Upon completion of any service or repairs to this equipment, ask the service technician to perform safety checks to determine that the equipment is in proper operating condition.</p> <p>16. Field Installation This installation should be made by a qualified service person and should conform to all local codes.</p> <p>17. Correct Batteries Warning: Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.</p> <p>18. Tmra A manufacturer's maximum recommended ambient temperature (Tmra) for the equipment must be specified so that the customer and installer may determine a suitable maximum operating environment for the equipment.</p> <p>19. Elevated Operating Ambient Temperature If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the manufacturer's maximum rated ambient temperature (Tmra).</p> <p>20. Reduced Air Flow Installation of the equipment in the rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.</p> <p>21. Mechanical Loading Mounting of the equipment in the rack should be such that a hazardous condition is not caused by uneven mechanical loading.</p> <p>22. Circuit Overloading Consideration should be given to connection of the equipment to supply circuit and the effect that overloading of circuits might have on over current protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.</p> <p>23. Reliable Earthing (Grounding) Reliable grounding of rack mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g., use of power strips).</p>
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Chapter 1 — Introduction

1.1 Features

Your color digital video recorder (DVR) provides recording capabilities for four, eight or 16 camera inputs. It provides exceptional picture quality in both live and playback modes, and offers the following features:

- 16 Composite Input Connectors
- Compatible with Color (NTSC or PAL) and B&W (CCIR and EIA-170) Video Sources
- Multiple Search Engines (Date/Time, Calendar, Event)
- Records up to 480 NTSC Frames per Second (400 PAL Frames per Second)
- “Loop-Through” Video Connectors
- Continuous Recording in Disk Overwrite Mode
- Continuous Recording while Archiving, Transmitting to Remote Site and during Playback
- User-friendly Graphical User Interface (GUI) Menu System
- Various Recording Modes (Manual / Schedule / Event)
- Audio Recording and Playback
- Alarm Connections Include: Input, Output.
- Built-in Alarm Buzzer
- Live or Recorded Video Access via Ethernet or Modem

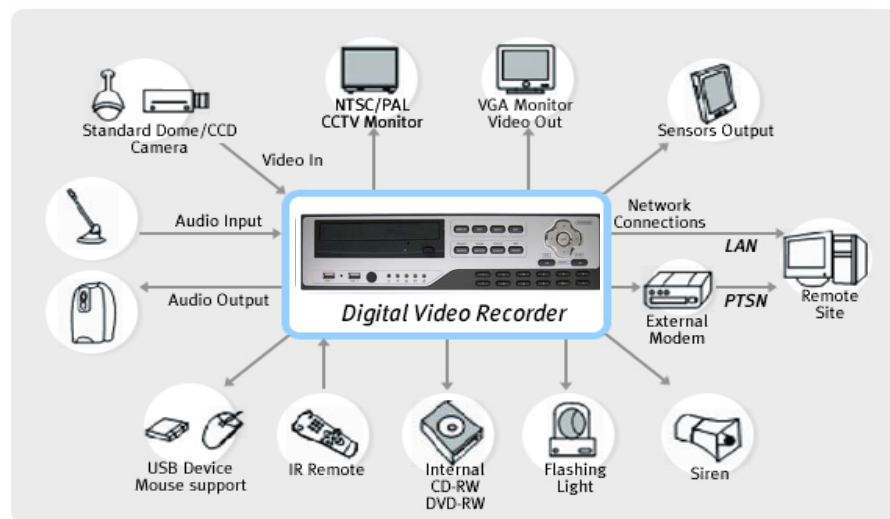


Figure – Typical DVR installation.

1.2 Technical Overview

Your DVR can replace both a time-lapse VCR and a multiplexer in a security installation. However, it has many features that make it much more powerful and easier to use than even the most advanced VCR.

The DVR converts analog NTSC or PAL video to digital images and records them on a hard disk drive. Using a hard disk drive allows you to access recorded video almost instantaneously; there is no need to rewind tape. The technology also allows you to view recorded video while the DVR continues recording video.

Digitally recorded video has several advantages over analog video recorded on tape. There is no need to adjust tracking. You can freeze frames, fast forward, fast reverse, slow forward and slow reverse without image streaking or tearing. Digital video can be indexed by time or events, and you can instantly view video after selecting the time or Event.

Your DVR can be set up for event or time-lapse recording. You can define times to record and the schedule can be changed for day, night, weekend and user defined holidays.

The DVR can be set up to alert you when the hard disk drive is full, or it can be set up to record over the oldest video once the disk is full.

Your DVR uses a proprietary encryption scheme making it nearly impossible to alter video.

You can view video and control your DVR remotely by connecting via modem or Ethernet. There are two USB ports that can be used to back up the video clip file to external hard disk drives(or memory sticks) and/or can be connected to the USB mouse.

NOTE: This manual covers the 4-, 8- 16-channel digital video recorders. The DVRs are identical except for the number of cameras and alarms that can be connected and the number of cameras that can be displayed. For simplicity, the illustrations and descriptions in this manual refer to the 16-camera model.

Chapter 2 — Digital Video Recorder Layout

NOTE: Your DVR should be completely installed before proceeding. Refer to Chapter 3 — Installation.

2.1 Front Panel Layout(AT-A1600, ST-A1600, ST-A800/A400)

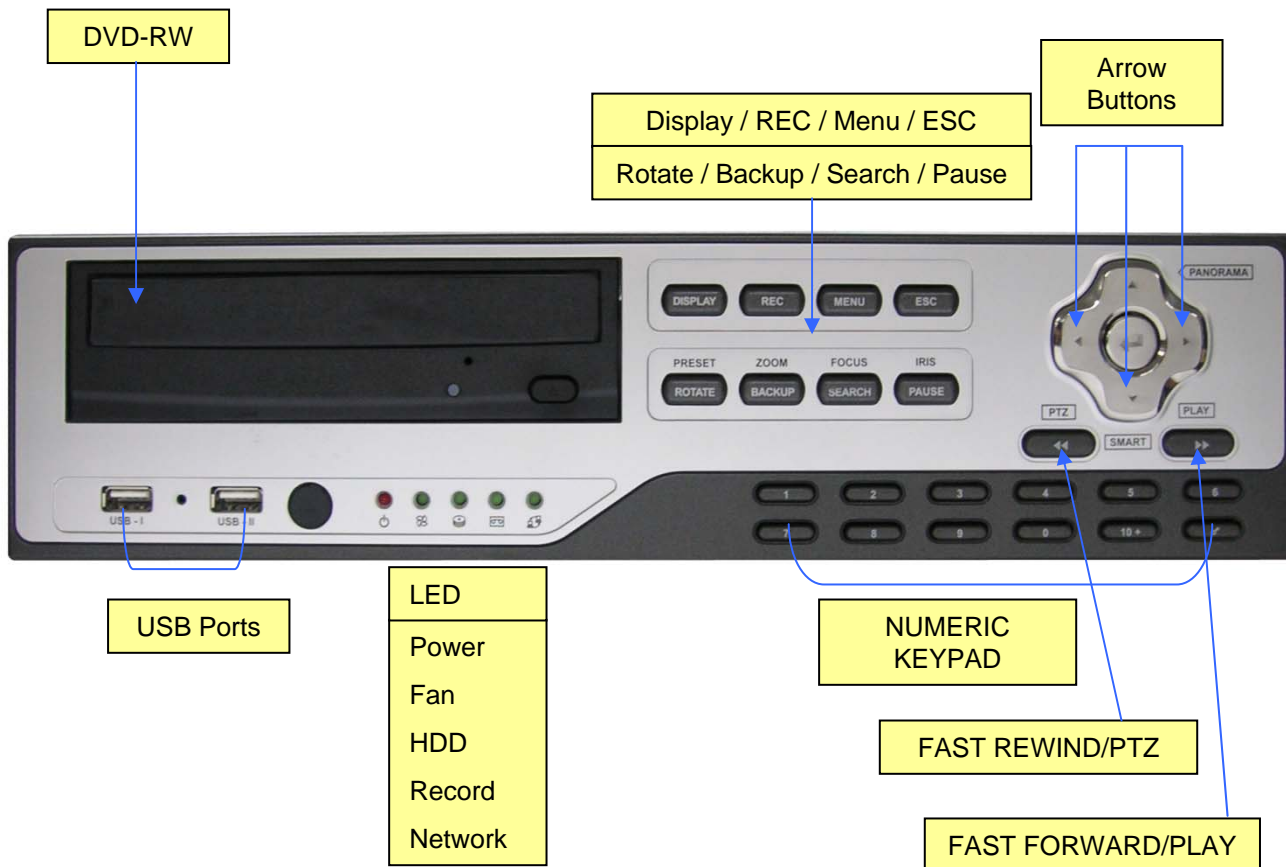


Figure — DVR front panel. (Others are similar.)

2.2 Front Panel Layout(ST-S800, ST-S400)

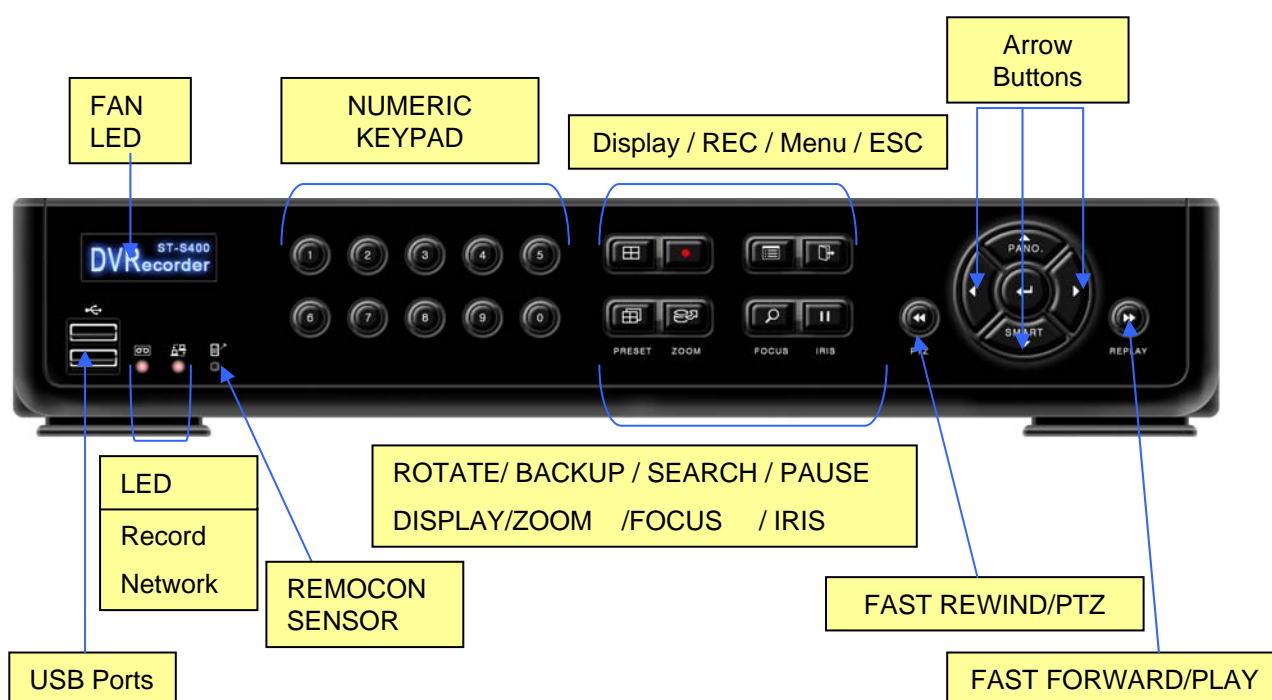


Figure — DVR front panel. (Others are similar.)

The front panel looks and operates much like a VCR combined with a multiplexer. Many of the buttons have multiple functions. The following describes each button and control. Take a few minutes to review the descriptions. You will use these to initially set up your DVR and for daily operations.

DISPLAY Button

Pressing the DISPLAY button toggles between different display formats.

REC Button

When pressing the REC button in the live mode, your DVR will start manual recording and you will be asked to confirm the instant recording.

MENU Button

Pressing the MENU button enters into the Setup screen. You will need to enter the administrator password to access the Setup. Pressing the button also closes the current menu or setup dialog box.

ESC Button

Pressing the ESC button exits the menu screens or moves to the upper menu.

ROTATE Button (Preset)

When in the live mode, pressing the ROTATE button displays another screen whenever you press this button manually. Also, this button is used to control presets in the PTZ mode.

BACKUP Button (Zoom)

Pressing the BACKUP button displays the Backup menu. Pressing this button again will exit the Backup menu. This button is also used for the Cut & Save hot key. Refer to the Appendix C. Also, this button is used to control zoom in the PTZ mode.

SEARCH Button (Focus)

Pressing the SEARCH button displays the Search menu. Pressing this button again will exit the Search menu. This operation is user password protected. Also, this button is used to control focus in the PTZ mode.

PAUSE Button (Iris)

Pressing the PAUSE button in the playback mode will pause the video. Pressing this button again will exit from the Pause mode. Also, this button is used to control iris in the PTZ mode.

UP, DOWN, LEFT, RIGHT Arrow Buttons

These buttons are used to navigate through menus and GUI. They are also used to control Pan and Tilt when in the PTZ mode. The arrow buttons can be used to move the position of the active cameo screen. These buttons also have the following functions.

- ▲ Button: Panorama playback in the Playback mode and tilting the camera up in the PTZ mode.
- ▼ Button: Smart playback in the Playback mode and tilting the camera down in the PTZ mode.
- ◀ Button: Backward playback at regular speed in the Playback mode and Backward playback frame by frame when pressing this button in the PAUSE mode. Pan the camera left in the PTZ mode.
- ▶ Button: Forward playback at regular speed in the playback mode and Forward playback frame by frame when pressing this button in the PAUSE mode. Pan the camera right in the PTZ mode.

ENTER Button

The Enter button selects a highlighted item or completes an entry that you have made.

REWIND (PTZ) Button

Pressing the RW button plays video backward at high speed. Pressing the button again toggles the playback speed from ◀◀, ◀◀◀, ◀◀◀◀ and ◀◀◀◀◀ and the screen displays ◀◀, ◀◀◀, ◀◀◀◀ and ◀◀◀◀◀ respectively. Used for zooming out in the PTZ mode. Pressing this button in the Pause mode plays video backward at slow speed. Pressing the button again toggles the playback speed from 1/2, 1/4, 1/8 and 1/16. When pressing this button, you can enter into the PTZ mode.

FAST FORWARD (Play) Button

Pressing the FF button plays video forward at high speed. Pressing the button again toggles the playback speed from ▶▶, ▶▶▶, ▶▶▶▶ and ▶▶▶▶▶ and the screen displays ▶▶, ▶▶▶, ▶▶▶▶ and ▶▶▶▶▶ respectively. Used for zooming in in the PTZ mode. Pressing this button in the Pause mode plays video forward at slow speed. Pressing the button again toggles the playback speed from 1/2, 1/4, 1/8 and 1/16. When pressing this button, your DVR will play back the latest recording data.

NUMBER Buttons (0 ~ 9, +10)

Pressing the individual camera buttons will cause the selected camera to display full screen. They are also used to enter passwords. Use the +10 button to select bigger numbers than 10. (For example, +10 + 6 = 16).

LOG OUT Button

Pressing the LOG OUT button exits the menu screen and you have to enter the password again to enter to the Setup menu.

Front LED Display (AT-A1600/ST-A1600/ST-A800/ST-A400)

POWER LED:



The POWER LED lights when the DVR is turned on.

FAN LED:



The FAN LED lights when the fan is working.

HDD LED:



The HDD LED lights when the HDD is being used.

REC LED:



The REC LED lights when the DVR is recording.

NET LED:



The NET LED lights when the DVR is connected to Network.

Front LED Display(ST-S800/ST-S400)

POWER /FAN LED:

The POWER LED lights when the DVR is turned on and lights when the fan is working.

2.2.1 AT-A1600/ST-A1600 Rear Panel Layout

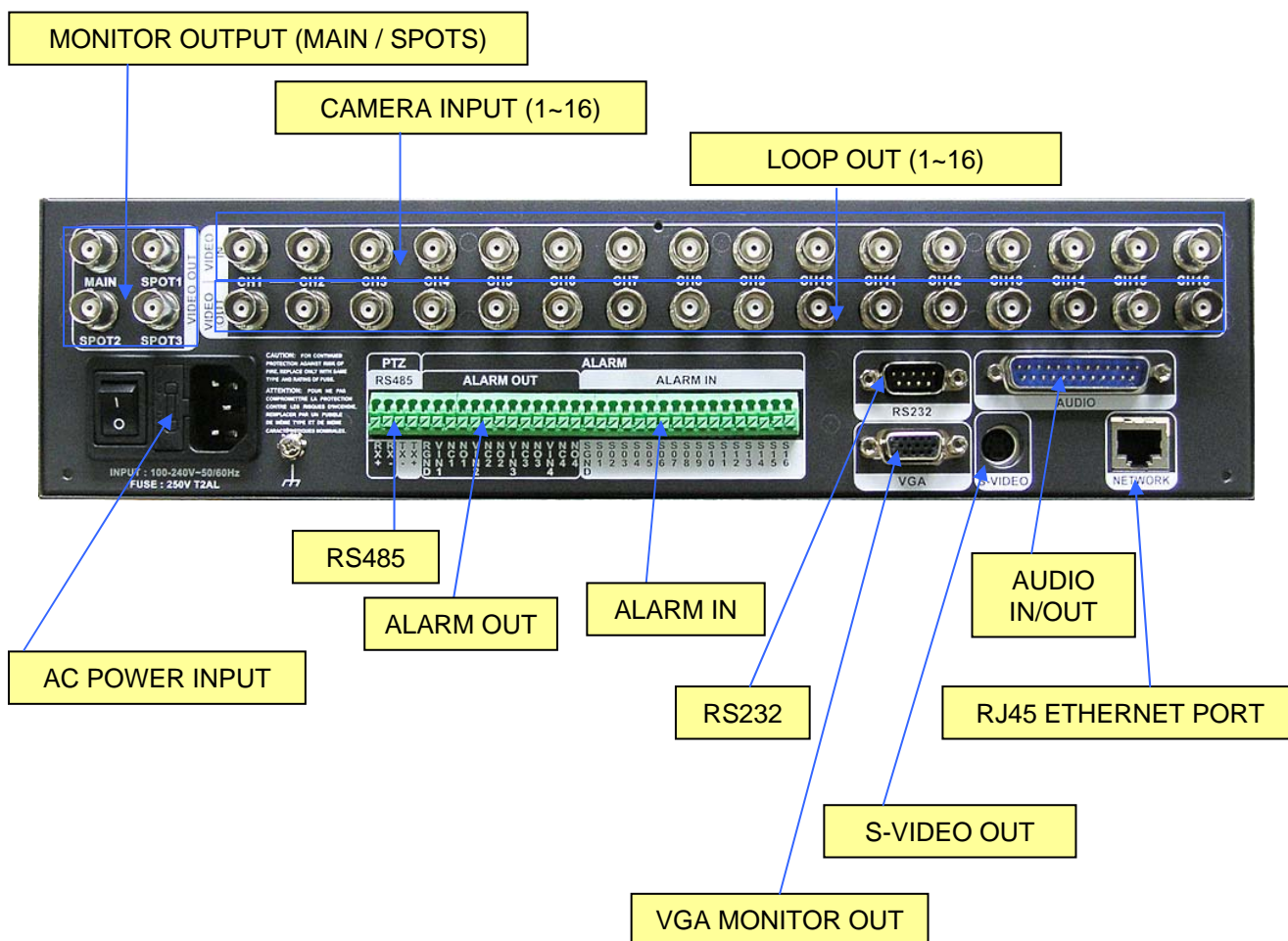


Figure – AT-A1600/ST-A1600 DVR rear panel.



2.2.3 ST-S800/ST-S400 Rear Panel Layout

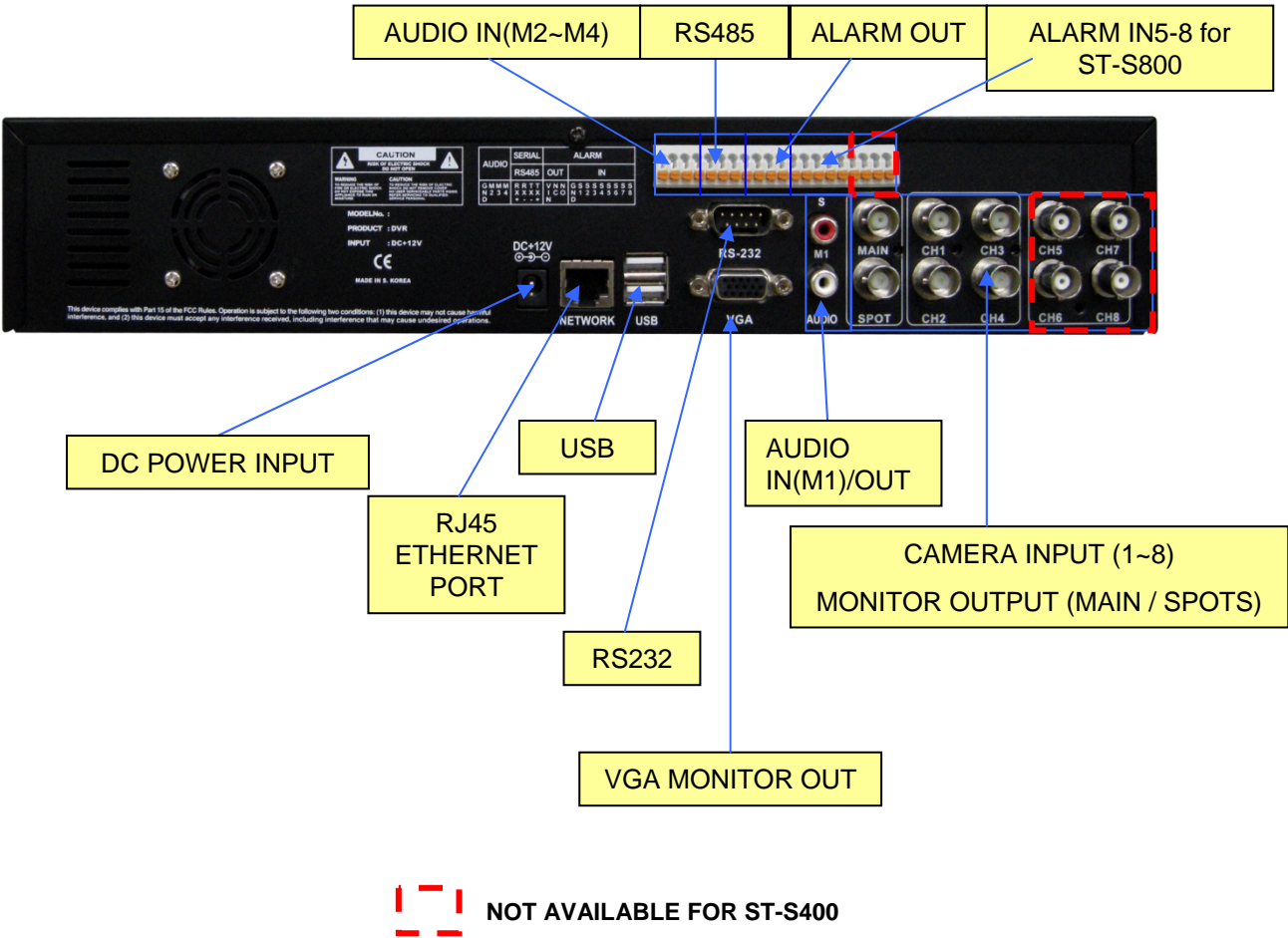


Figure – ST-S800 DVR rear panel.

2.3 IR Remote Controller

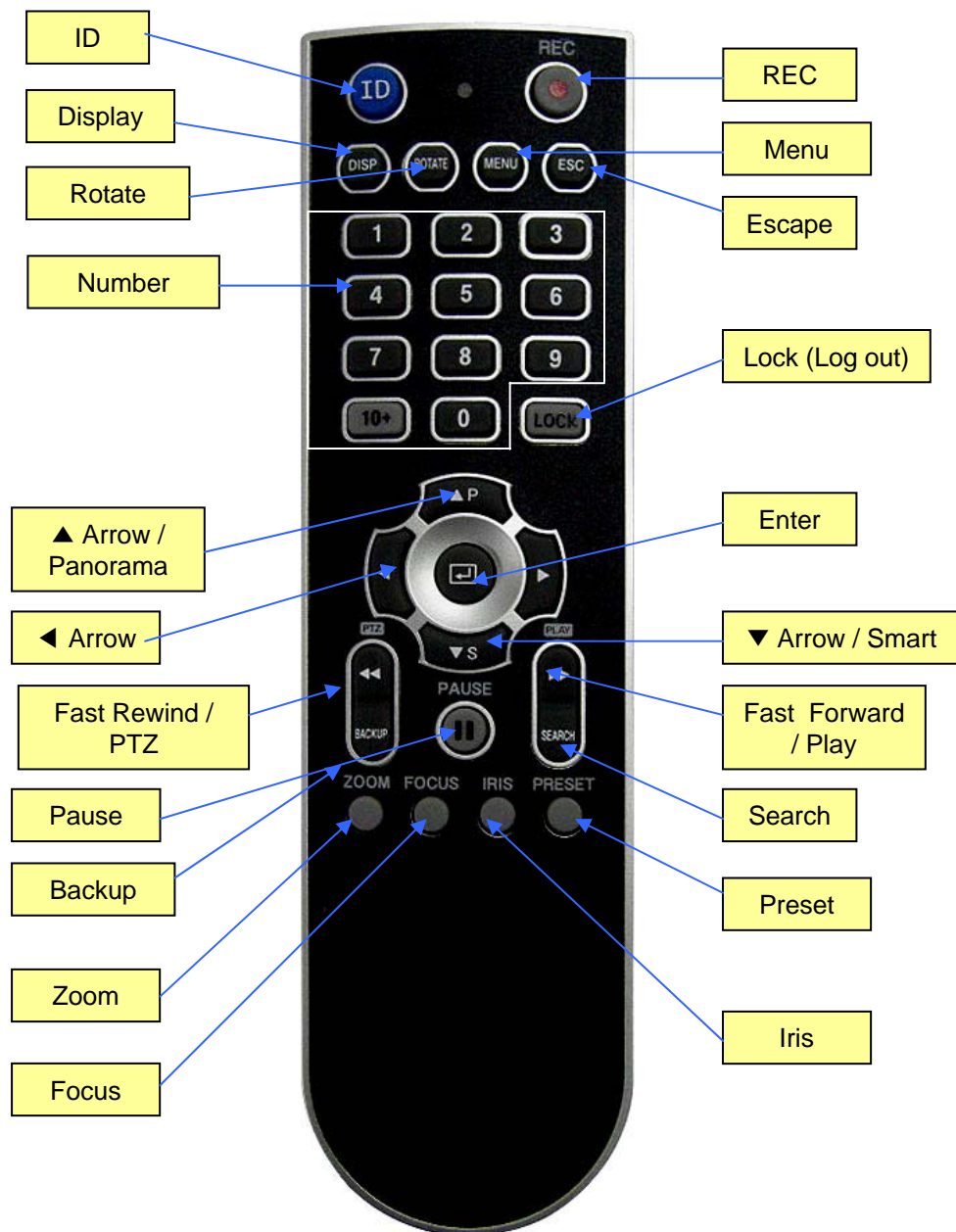


Figure – IR Remote Controller.



Caution :
When installing HDDs, disconnect the DVR's power. There is a risk of electric shock.
After connecting the SATA DATA cable, be careful not to break the main board's SATA connector
Make sure SATA DATA cables and SATA POWER HARNESS does not get caught in the MOTOR FAN.

3.1 Connecting the Video Source



Figure — Video input connectors.

Connect the coaxial cables from the video sources to the BNC Video In connectors.

3.2 Connecting the Loop Through Video



Figure — Video Loop Through connectors.

If you would like to connect your video source to another device, you can use the Loop BNC connectors.

NOTE: The Loop BNC connectors are auto terminated. Do NOT connect a cable to the Loop BNC unless it is connected to another terminated device because it will cause poor quality video.

3.3 Connecting the Monitor



Figure — Video Out connectors.

Connect the monitor to either Main or VGA connector.
Connect the spot monitor to the SPOT connector if required.

3.4 Connecting Audio

NOTE: It is the user's responsibility to determine if local laws and regulations permit recording audio.



Figure — 4Channel Audio In and Out connectors.

Figure — 16Channel Audio connectors.(option)

AUDIO IN is basically supports 4 channels. 16 channels support is an option.
Your DVR can record audio. Connect the audio source to Audio In. Connect Audio Out to your amplifier.

NOTE: The DVR does not have amplified audio output, so you will need a speaker with an amplifier. The audio input can be from an amplified source or directly from a microphone.

3.5 Connecting Alarms

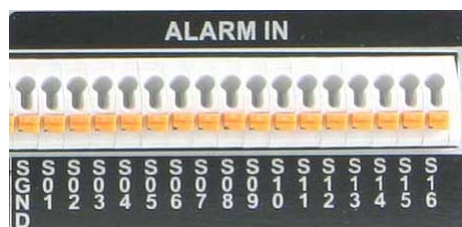


Figure — Alarm Input connector strips.

NOTE: To make connections on the Alarm Connector Strip, press and hold the button and insert the wire in the hole above the button. After releasing the button, tug gently on the wire to make certain it is connected.

To disconnect a wire, press and hold the button below the wire and pull out the wire.

AI 1 to 16 (Alarm In)

You can use external devices to signal the DVR to react to events.
Mechanical or electrical switches can be wired to the AI (Alarm In) and GND (Ground) connectors.
See Chapter 6 — Advanced Settings – Alarm Setup.

GND (Ground)

NOTE: All the connectors marked GND are common.

Connect the ground side of the Alarm input and/or alarm output to the GND connector.

AO 1 TO 4 (Alarm Out)

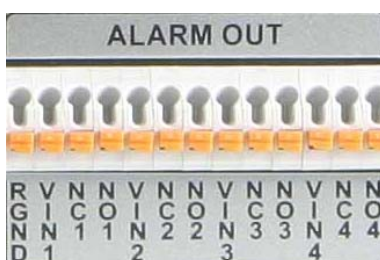


Figure — Alarm Output connector strips.

The DVR can activate external devices such as buzzers or lights. Connect the device to the AO (Alarm Out) and GND (Ground) connectors. See Chapter 6 — Advanced Settings – Alarm Setup.

3.6 Connecting to the RS485



Figure — RS485 Connector.

The DVR can be controlled remotely by an external device or control system, such as a control keyboard using RS485 half-duplex serial communications signals. The RS485 connector can also be used to control PTZ (pan, tilt, zoom) cameras. Connect RX-/TX- and RX+/ TX+ of the control system to the TX-/RX- and TX+/RX+ (respectively) of the DVR. See the PTZ camera or remote controller manufacture's manual for configuring the RS485 connection.

3.7 Connecting to the Network Port

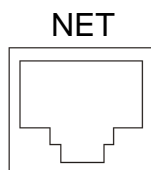


Figure — Network connector.

The DVR can be networked using the 10/100Mb Ethernet connector. Connect a Cat5 cable with an RJ-45 jack to the DVR connector. The DVR can be networked with a computer for remote monitoring, searching, configuration and software upgrades. See Chapter 6.4 Network Setting – Ethernet Setup.

3.8 Connecting to the RS232 Port



We recommend RS-232 cables such as shown above for prevention of EMI(electromagnetic interference) prevention.

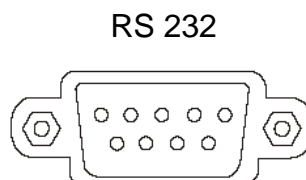


Figure — RS232 connector

An RS232 port is provided to connect an external modem for remote monitoring and configuration. See Chapter 6.4 Network Setting – Serial Setup and Appendix G – PSTN Modem Setting.

NOTE: The DVR is not supplied with a modem cable, and many modems are not supplied with cables. Make certain you have the correct cable when purchasing the modem.

3.9 Connecting to the USB Port



Figure — USB connector.

Two USB ports are provided. One is for USB Mouse and another is for connecting external hard disk drives or USB memory sticks for clip copying video. Position the external hard disk drive close enough to the DVR so that you can make the cable connections, usually less than 6 feet. Use the USB cable provided with the hard disk drive to connect it to the DVR. See Chapter 5 — Operation for information on archiving video to an external USB hard disk drive or USB memory stick.

Caution :

When using a USB mouse, use a 800 DPI product or higher
It not, it might not function normalcy.

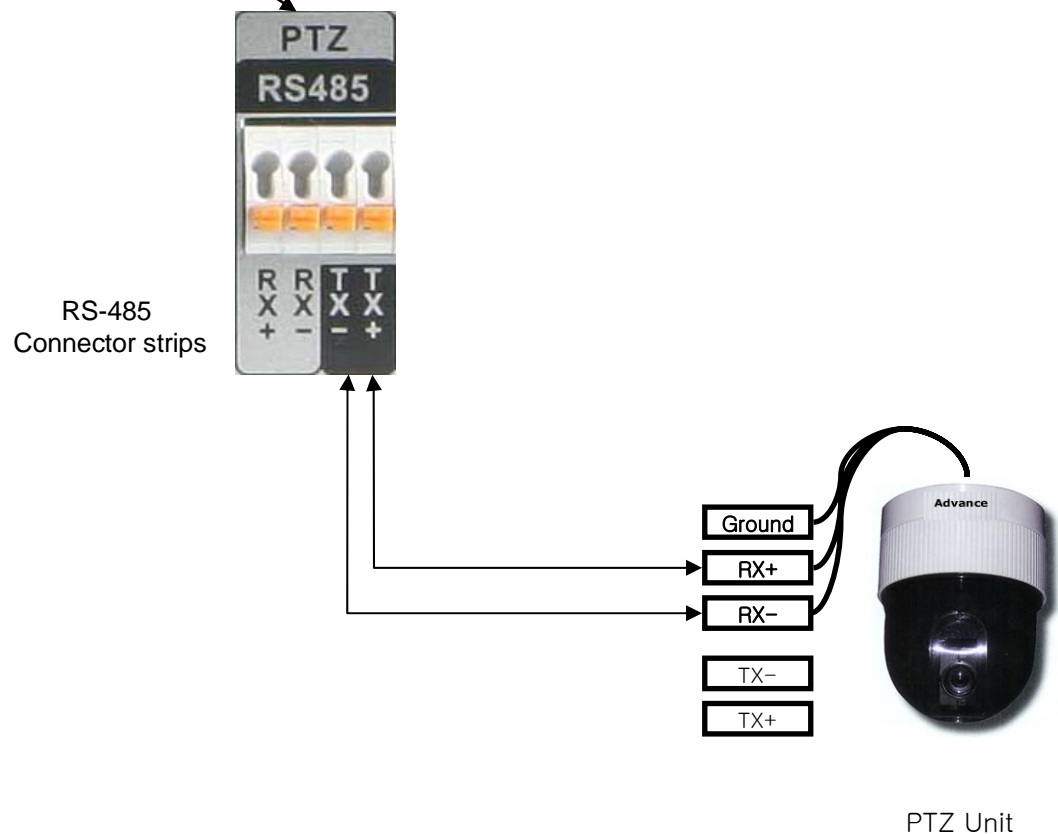
3.10 Connecting to the PTZ Camera Unit

Make a connection of PTZ unit to RS485 at the rear panel of DVR. (See the figure below)

PTZ units currently being supported are **Pelco-D/P**, **NVCC-Z42N**, **CyberDome(Kalatel)**, **Samung**, **Samsung Techwin**, **Dongyang**, **Sungjin**, **Dongyang**, **DRX-500**, **DS120**, **Fastrax II**, **Sensormatic**, **PIH-7600**, **Eyevue Dome**, **ERNA Tech**, **DY-255RXB**, **AcutVista**, **Panasonic WV**, **CS950**, **PTC-410C**



DVR Rear Panel



PTZ Unit

Chapter 4 — Quick Guide

4.1 How to Install

Install a Hard Disk Drive to your DVR after opening the upper case.

- Connect cameras to the Video In No. 1 ~ 16.
- Connect a Monitor to the Main(CCTV) or VGA. (If necessary, connect the spot monitor to the Spot A, B or C).
- Connect a Network cable to the Ethernet port.
- Turn on the power sources for cameras, monitor and DVR.

Your DVR will be initialized and it will take approximately 150 seconds. As soon as the DVR completes its initialization process, it will begin showing live video on the attached monitor. The default mode is to display all cameras at once. Pressing any camera button will cause that camera to display full screen. It displays live video until the user enters another mode. The default mode for audio is mute on. Please turn off the audio mute to play live audio.

NOTE: Refer to the Chapter 3 - Installation for more details.

4.2 Common User Interface

CAMERA +	NAME	INSTALL +	HIDDEN +
1	C01	ON	OFF
2	C02	ON	OFF
3	C03	ON	OFF
4	C04	ON	OFF

Icon	Remarks
	Button that allows to changes individual channel setting such as 1 – 4 -> 5 – 8 -> 9 – 12 -> 13 – 16 range.
	Allows to change all channel setting related to INSTALL.
	Button that shows the list of items for setting
	Saving button to change the setting value to take into affect
	Cancel button not to change the setting value to revert to previous setting



Icon	Remarks
	Exit button without saving from the main menu.
	Button for Day, Night, Weekend setting as well as other detailed menu setting
	From the setting value 8 + means that the minimum value is 8, there are higher numbers being set.

Mouse Function	Remarks
Up	Moves mouse pointer up or displays TOP menu at Live or Playback screen
Down	Moves mouse pointer down or displays BOTTOM menu at Live or Playback screen
Left	Moves mouse pointer to the left
Right	Moves mouse pointer to the right
Left Button	Works as SET from keypad. Displays full screen from Live or Playback
Right Button	Display CAMEO menu at Live or Playback screen.

4.3 Monitoring

Using front key pad :

Select the desired split screen using the front Display button.

To see the FULL screen, use the front numeric keys.

Using mouse:

Move the mouse to the bottom of screen then activate Bottom Menu to select the split screen.

To see the FULL screen, click the left mouse button on a channel.

NOTE: Refer to the Chapter 5 – Operation.

4.4 How to Record

The factory default is applied to recording when the system is being turned on.

NOTE: Refer to Configuring Recording Settings in the Chapter 6 – Advanced Settings.

4.5 How to Playback

Click the search button of the front panel of DVR to find the date and time of recorded material for playback. User is able to search the video using the variety of playback methods of choice.

NOTE: Refer to the Chapter 5 – Operation - Searching Video & Playing Video

4.6 How to set up Networking

When using a dynamic IP, turn on the Dynamic IP in the Ethernet Setup menu. When using a static IP, enter the IP information in the Ethernet Setup menu.

Install the SMS software to your PC and add the DVR information to the SMS.

NOTE: Refer to the Ethernet Setup in the Chapter 6 – Advanced Settings and the included SMS manual.

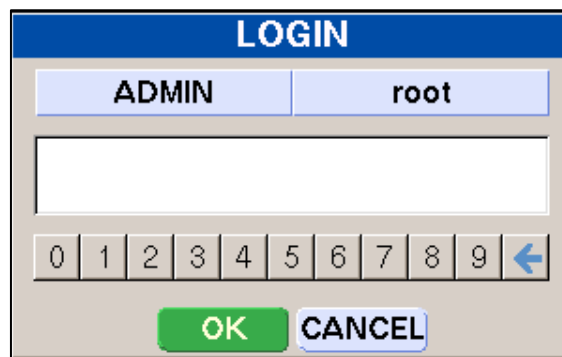
NOTE: You will be asked to confirm the password when pressing the front buttons. The default password is 1111.

Chapter 5 — Operation

5.1 Log-in to DVR

This system classifies user category as ADMIN, SUPERUSER, USER limiting the access to system operation. Each log-in authority level and access level has been summarized as below, and ADMIN level overrides all.

Press the MENU button to enter the setup screens. The Admin Password screen appears.



Enter the password by pressing the appropriate combination of number buttons and then the Enter button. The factory default password is 1111.

The log-in window appears when the following buttons are pressed.

Button	Log-in Authority
Menu	Admin
REC	Admin
Backup	Superuser
Search	Superuser
Play	Superuser
Pause	User
PTZ	User

5.2 Log-out to DVR

To log-out from the system, click the LOCK button at front panel to brute force log-out or click the Log-out button from the Top Menu using mouse.

The DVR system automatically does log-out after a certain time is elapsed. Menu Timeout that has been set in System Setting is the time for predefined automatic log-out.

MENU	SEARCH	BACKUP	STATUS	EVENT	REC	LOGOUT
------	--------	--------	--------	-------	-----	--------

Button	Remarks
Lock	It locks DVR as Log-out stage

5.3 Live Monitoring

NOTE: This chapter assumes your DVR has been installed and configured. If it has not, please refer to Chapters 3. Installation and 6. Advanced Settings.

The DVR's controls are similar to a VCR. As with a VCR, the main functions are recording and playing back video. However, you have much greater control over recording and playing back video. You can establish recording schedules based on time of day, night and weekend. The DVR allows you to search through the recorded video using much more sophisticated tools than those available with VCRs. Additional DVR features that are not available with VCRs are remote control and viewing, recording video at the same time you are watching previously recorded video, and printing images to a standard printer.

The Front Panel Display and controls are described in Chapter 2 — Digital Video Recorder Layout.

As soon as the DVR completes its initialization process, it will begin showing live video on the attached monitor. The default mode is to display all cameras at once. Pressing any camera button will cause that camera to display full screen. It displays live video until the user enters another mode. The default mode for audio is mute on so you have to turn off the mute to play live audio.

Pressing the DISPLAY button cycles the DVR through the different display formats.

Pressing the ROTATE button allows the manual rotations whenever pressing this button.

When in one of live formats, press the ENTER button and a blue square cursor will appear. You can move the cursor by using arrow buttons and press the ENTER button again to pop up the cameo menu. The following screen will appear.

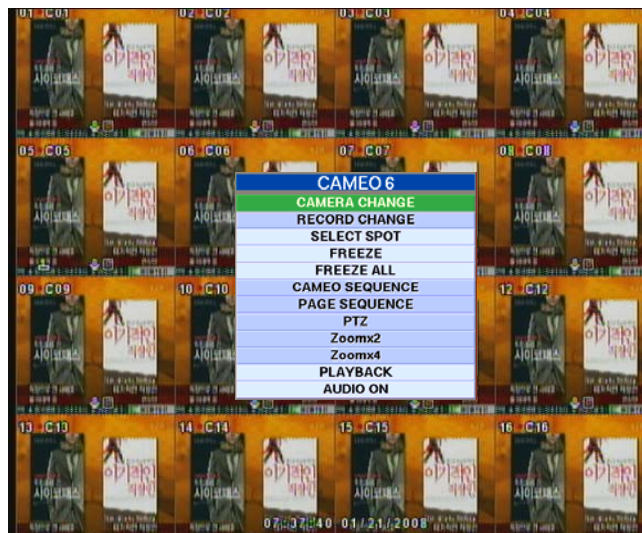


Figure - LIVE CAMEO MENU.

Live Cameo Menu

CAMEO 6
CAMERA CHANGE
RECORD CHANGE
SELECT SPOT
FREEZE
FREEZE ALL
CAMEO SEQUENCE
PAGE SEQUENCE
PTZ
Zoomx2
Zoomx4
PLAYBACK
AUDIO ON

CAMERA CHANGE

You can change the live camera to the selected channel. Press the ENTER button after highlighting the CAMERA CHANGE. The below pop-up menu will appear.

<CAMEO 10> CAMERA CHANGE								
1	2	3	4	5	6	7	8	DEFAULT
9	10	11	12	13	14	15	16	CLOSE

Figure – CAMEO – CAMERA CHANGE.

You can select a cameo camera and the video will be swapped to the cameo camera.

RECORD CHANGE

When selecting the RECORD CHANGE on the CAMEO menu, the below menu will be popped up.

RECORD CHANGE 2				
	SPEED	QUALITY		
TIME	15	HIGHEST ▼		
EVENT	30	HIGHEST ▼		
RESOLUTION	STD ▼			
OK CANCEL				

Figure – CAMEO – RECORD CHANGE.

You can change the recording quality, resolution and image quality to the selected channel in this menu.

FREEZE/FREEZE ALL

You can freeze the live display screen by selecting the FREEZE or FREEZE ALL in the CAMEO menu shown in the following menu screen.

You can freeze all the channels by selecting the FREEZE ALL until you press the FREEZE ALL again or you can freeze one channel by selecting FREEZE until you press the FREEZE again.

CAMEO SEQUENCE

The cameo sequence means rotating the selected cameras on a camera channel of split screens. The cameras being displayed on the other channels will not be rotated on the cameo sequence channel.

PAGE SEQUENCE

Video outputs at current split screen mode will shift into next video outputs.

Ex. At 4 split screen mode 1~4 → 5~8 → 9~12 → 13~16

PTZ

If a camera is set as PTZ camera, it will enter in PTZ mode

ZOOM X 2(ZOOM X 4)

Zoom is only active in 1 split screen mode. It is possible to zoom into 9 splits or 16 split screens.

Users can maneuver the screen with the arrow keys.

PLAYBACK

Only selected cameo screen will playback.

AUDIO ON(OFF)

Live audio can be turned on or off by selecting AUDIO ON/OFF button

CAMEO 7
CAMERA CHANGE
RECORD CHANGE
SELECT SPOT
FREEZE
FREEZE ALL
CAMEO SEQUENCE
PAGE SEQUENCE
PTZ
Zoomx2
Zoomx4
PLAYBACK
AUDIO ON

CAMEO 7
CAMERA CHANGE
RECORD CHANGE
SELECT SPOT
FREEZE
FREEZE ALL
CAMEO SEQUENCE
PAGE SEQUENCE
PTZ
Zoomx2
Zoomx4
PLAYBACK
AUDIO OFF

TOP MENU

At live mode, by pressing the upward arrow key it will show a TOP menu, just like the figure shown below. For mouse usage, position the mouse pointer to the upper side of the screen.

MENU	SEARCH	BACKUP	STATUS	EVENT	REC	LOGOUT
------	--------	--------	--------	-------	-----	--------

Figure0 – TOP MENU.

You can enter to any menu of Search, Backup, Alarm, Status, Recording and Log-out

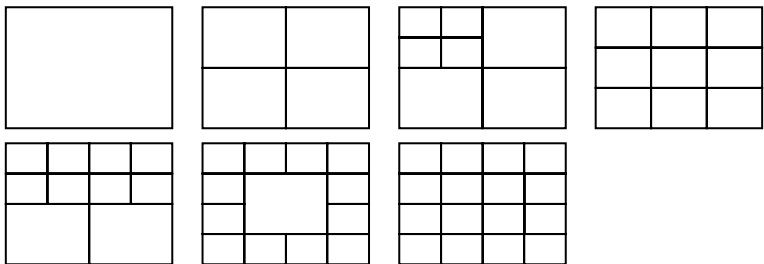
BOTTOM MENU

At live mode, by pressing the downward arrow key it will show a BOTTOM menu. For mouse usage, position the mouse pointer to the bottom side of the screen.

1	4	7	9	10	13	16
---	---	---	---	----	----	----

Figure 21 – BOTTOM MENU.

The Bottom Menu will allow you to change the live view formats.

Button	Remarks
Display	<p>Whenever pressing the button, 1, 4, 7, 9, 10, 13, 16 screen display is sequentially showed up. It helps to monitor efficiently by selecting the choice of screen split.</p> 
Rotate	<p>In the live mode, pressing the ROTATE button displays another screen whenever you press this button manually. Pressing the button allows manual screen change in 1, 4, 9 split screens. For example, pressing the button in 4 split screen changes into the next 4 different camera inputs.</p>
Enter	Selecting Cameo or displaying Cameo menu
Numeric Key	Used for selecting the corresponding camera directly
10+ Num. Key	Used for entering number greater than 10

5.4 PTZ Control

The DVR can control multiple cameras that have Pan, Tilt and Zoom capabilities. Press the ENTER button to pop up the Live Cameo Menu and select PTZ to get into the PTZ mode. The PTZ can be controlled in split screens by mouse or front key buttons. When pointing a PTZ camera channel on split screens, the mouse pointer will be changed.

When pressing the PTZ button on the front, it will activate the PTZ camera that was used recently.

There are two ways to control the PTZ functions, one is by mouse and another is by front key buttons.

1. By Mouse ;

- Press the right mouse button on a PTZ camera channel to pop up the Live Cameo Menu.
- Select PTZ on the Live Cameo Menu.
- Pressing the right mouse button again, the below PTZ Menu screen will be displayed.
- You can control the Zoom In/Out, Focus and Iris by pressing the buttons on the below menu.
- Also, you can open the PTZ setup screen menu by pressing the menu button on the below.

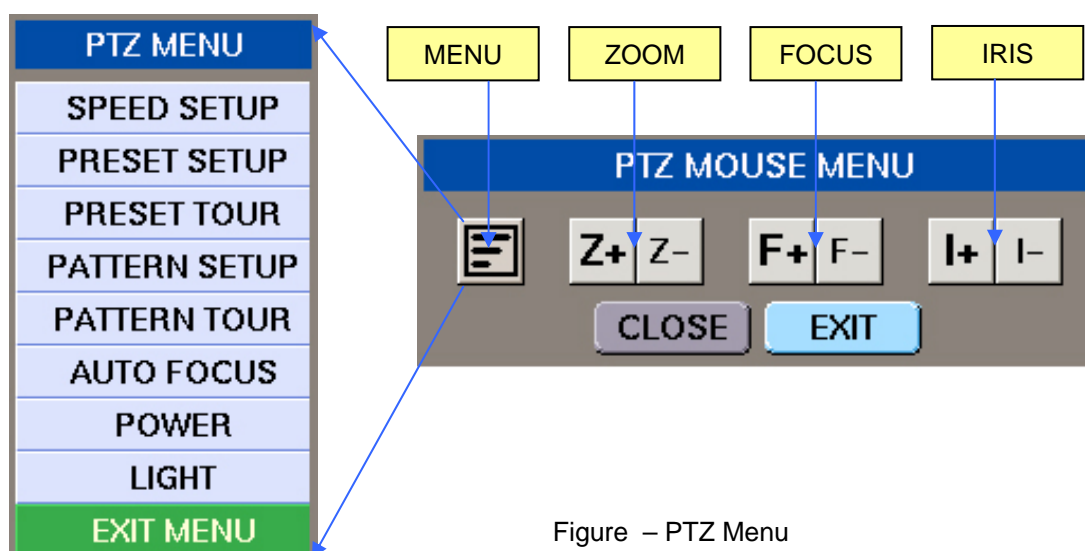


Figure – PTZ Menu

2. By Front Key Buttons;

- Press the Enter button and move to a PTZ camera channel.
- Press the Enter button once again to pop up the Live Cameo Menu.
- Select PTZ on the Live Cameo Menu.
- Once pressing the Enter button again, the above PTZ menu screen will be displayed.
- Zoom Control: Press the Zoom (Backup) button in the PTZ mode and press Fast Rewind for Zooming In and Fast Forward for Zooming Out.
- Focus Control: Press the Focus (Search) button in the PTZ mode and you can control Focus by Fast Rewind and Fast Forward buttons.
- Iris Control: Press the Iris (Pause) button in the PTZ mode and you can control Iris by Fast Rewind and Fast Forward buttons.

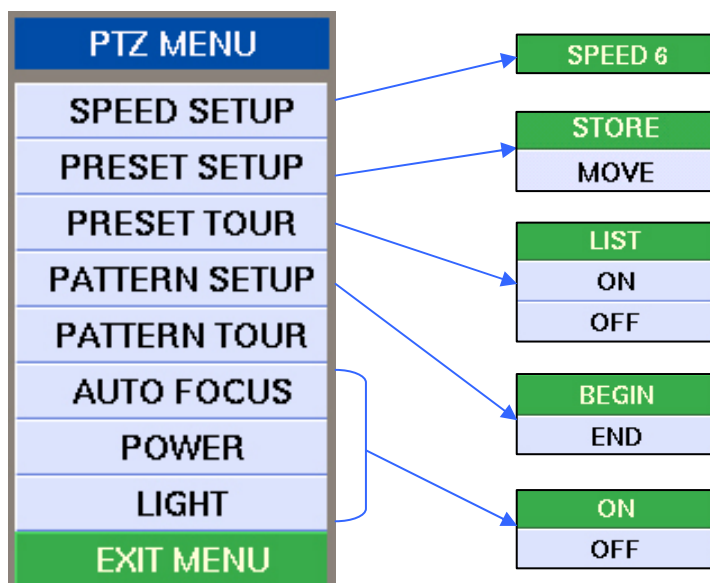


Figure – PTZ SUB-MENU.

Speed Setup:

You can select the moving speed of the PTZ camera by choosing the speed between 1 to 8 after pressing SPEED.

NOTE: When using mouse to move PTZ camera, the moving speed depends on the mouse location. When locating the mouse to the edge side out of center, the speed is getting faster.

Preset Setup:

Move the PTZ camera to a target location first to set up a preset and press STORE. To move to the saved preset points, press MOVE and select a preset number. Then, the PTZ camera will move to the preset point. You DVR can save up to 64 presets.

Preset Tour:

You can make a preset tour by listing 6 different presets. Press the List and you can make a list with 6 different presets and press "On" to make the recorded preset tour.

Pattern Setup:

You can make a pattern by recording the movements, zooming, focusing and iris. Press the begin button and move or zoom the PTZ camera and then press the end button. All the panning and tilting movements, zooming and iris control will be recorded.

Pattern Tour:

When pressing the pattern tour button, the PTZ will track the saved pattern.

Auto Focus / Power / Light:

You can turn on or off the auto focus, power or light by selecting each category and pressing On or Off.

NOTE: Some PTZ cameras don't have Preset Tour or Pattern Tour functions.

5.5 Recording Video & Audio

Recording Video

Once you have installed the DVR following the instructions in Chapter 3 – Installation, it is ready to record. Unless you change the setup, the DVR will start recording when you press the REC button on the remote or front panel.

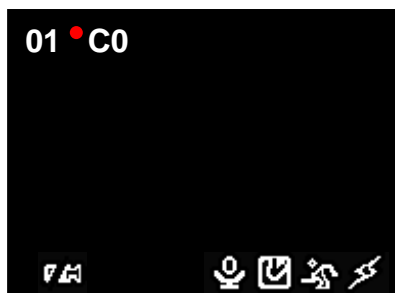
Although you will be able to record without changing the unit from its original factory settings, you may want to take advantages of the DVR's many tools. See Chapter 6 – Advanced Settings for detailed descriptions of the recording mode options. Here is a brief description of some of the settings.

Recording Audio

If the DVR was set up to record audio. It will record audio when video is recording.

NOTE: Make certain you comply with all local federal laws and regulations when recording audio.

Recording Cameo Window



Ch 1 Cameo Window



Ch 1 Cameo Window

-  Time Recording
-  Motion Recording
-  Alarm Recording
-  Videoloss Recording

REC: Manual Recording

5.6 Searching Video

There are various ways in searching the recorded data on DVR.

GOTO FIRST: Searching the earliest recorded data.

GOTO LAST: Searching the latest recorded data.

CALENDAR : Using the internal calendar program to search for the recorded video data by date/time.

RECORD LIST : Prioritized search for recorded date.

EVENT SEARCH : Search for the event occurred by search date.

OVERLAPPED LIST : Search for the data with overlapped date.

MANUAL RECORD LIST : Search for the data with manual record date



Figure – SEARCH MENU.

You can select the media from a down list by selecting the box beside TARGET. You can playback the recorded video from HDD (Hard Disk Drive), CD or USB.

GOTO FIRST

When pressing the GOTO FIRST, the DVR will play back from the earliest recorded data.

GOTO LAST

When pressing the GOTO LAST, the DVR will play back from the latest recorded data which is 30 seconds earlier than the current time.

CALENDAR SEARCH



Figure – CALENDAR SEARCH.

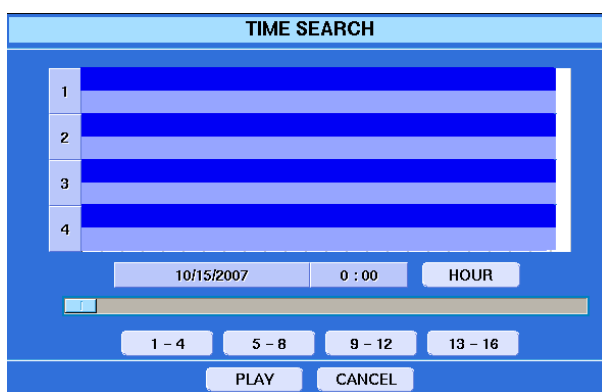


Figure – TIME SEARCH.

Days with recorded video are displayed on the calendar in orange color. You can highlight the days with recorded video by using the arrow buttons. Once you have highlighted a day, press the ENTER button to select it.

A time bar will be displayed at the bottom of the TIME SEARCH screen. Hours in which video was recorded will be highlighted with blue. You can use Left and Right arrow buttons to select the time. Once the time bar is highlighted, you can select minutes by using the Left and Right arrow buttons after pressing the ENTER button.

NOTE: The bar graph colors will be different for each recording mode. The blue is by Time, slate blue is by audio, Red is by Motion, Green is by Alarm and Orange is by Video Loss.

RECORD LIST

Once you have pressed the RECORD LIST, your DVR will display a list with recorded video and Date information. Select a list and press the PLAY button to playback the recorded video.



Figure – RECORD LIST.

EVENT SEARCH

Select the EVENT SEARCH in the SEARCH menu.

EVENT SEARCH	
EARLIEST RECORD	04/30/2007 09:00:00
LATEST RECORDING	04/30/2007 14:45:13
DATE	04/30/2007
MOTION	ON
ALARM IN	ON
VIDEO LOSS	ON
TEXT-IN	ON
SELECT CAMERA	<input checked="" type="checkbox"/> SELECT ALL
<input checked="" type="checkbox"/> 1	<input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input checked="" type="checkbox"/> 4 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 6 <input checked="" type="checkbox"/> 7 <input checked="" type="checkbox"/> 8
<input checked="" type="checkbox"/> 9	<input checked="" type="checkbox"/> 10 <input checked="" type="checkbox"/> 11 <input checked="" type="checkbox"/> 12 <input checked="" type="checkbox"/> 13 <input checked="" type="checkbox"/> 14 <input checked="" type="checkbox"/> 15 <input checked="" type="checkbox"/> 16
VIEW SEARCH LOG	
EXIT	

Figure – SEARCH LOG.

SEARCH LOG RESULT				
NO.	TIME	DST	CAMERA	EVENT
84	2007/4/30 14:45:45		6 13 14	MOTION
83	2007/4/30 14:44:05		12 13 14 15	MOTION
82	2007/4/30 14:43:40		5	MOTION
81	2007/4/30 14:43:35		1 2 3 4 5 6 7 8 9 10 11 12	MOTION
80	2007/4/30 14:43:30		3 4 5 7 8 10 11	MOTION
79	2007/4/30 14:43:25		1 2 5 6 8 9 10 11 14 15 16	MOTION
78	2007/4/30 14:42:30		1 2 3 4 5 6 7 8 9 10 11 12	MOTION
77	2007/4/30 14:42:00		1 2 6 7 8 13 14 15 16	MOTION
76	2007/4/30 14:41:50		1 2 6 7 13 14 15 16	MOTION
75	2007/4/30 14:38:30		3 6 12 13 16	MOTION
74	2007/4/30 14:34:05		3 4 6 12 13	MOTION
73	2007/4/30 14:33:35		1 2 3 4 5 6 7 8 9 10 11 12	MOTION
72	2007/4/30 14:33:30		2 3 4 5 6 9 13 14 16	MOTION

◀ 13 – 14 HOUR ▶

PREV NEXT GOTO

PLAY CANCEL

Figure – SEARCH LOG RESULT.

The EVENT SEARCH screen will display changeable Date/Time, recorded information and channel selection. You can change the date/time and select the channels that you want to search.

You can search the recorded video by Motion, Alarm In and Video Loss by turning on or off. Once you have selected the events and channels for searching, press the VIEW button and you will be asked to confirm the search of the recorded video with the events.

You will get a recorded list with events and you can playback by selecting one of them on the list.

OVERLAPPED LIST

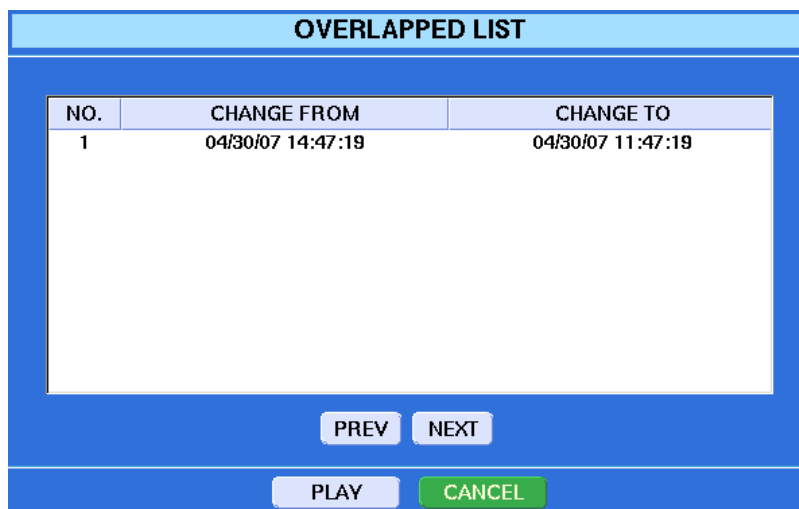


Figure – OVERLAPPED LIST(1)

You can have an overlapped list by selecting OVERAPPED LIST in the SEARCH menu. You can select one of the video files in the list and playback. Your DVR will create the overlapped video list caused by Date/Time changes or the DST (Daylight Saving Time).

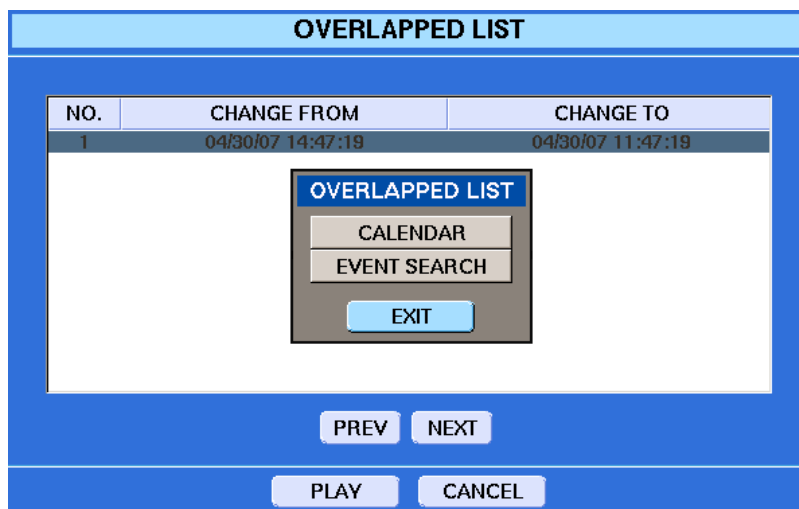


Figure – OVERLAPPED LIST(2)

Clicking the play button after selecting from the list will show you the overlapped list pop-up.. Like the HDD play, calendar and event search play is available.

5.7 Playing Video

Normal Playback

It means a conventional playback.

It supports forward/backward playback as well as playback speed and pause.

Single Step Playback

Single step playbacks the screen display one frame at a time by pressing up/down button during the pause stage. If you press the PAUSE button again, it returns to Normal Playback mode.

Single Step playback is useful for the viewing of specific video image in detail.

Smart Playback

Pressing the Down Arrow button from Normal Playback mode, Smart Playback will be activated.

Smart playback is a function that searches and playbacks the video that has movements. Pressing the Down Arrow once again will return to the Normal Playback Mode.

It is convenient to search and playback the incidents that occurred over a long period of time.

Panorama Playback

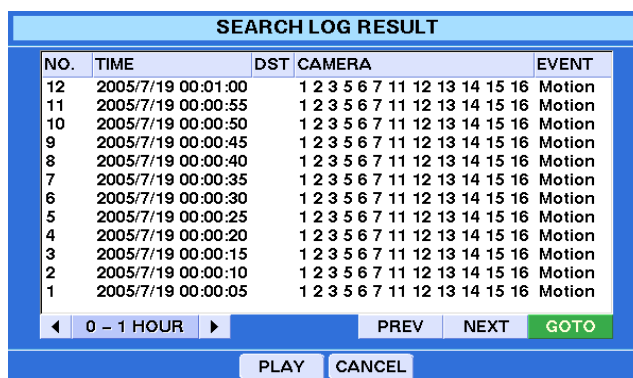
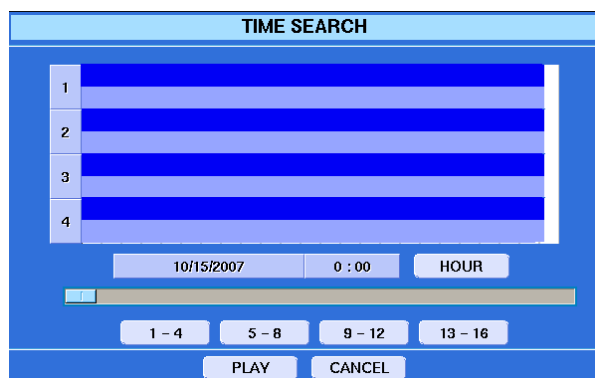
Pressing up direction key from a single screen playback mode changes to 4/9/16 screen panorama viewing mode. When it goes to single screen, the mode is changed to Normal Playback.

Panorama playback does display a single frame of the video into several screens frame by frame.

It is very useful feature to monitor a specific video image's progress.

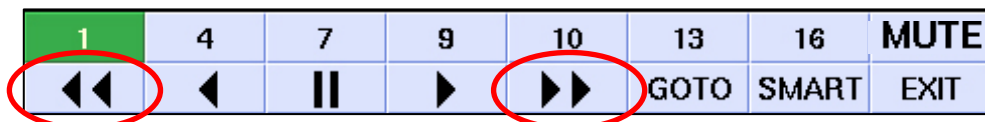
Normal Playback

Normal playback means a constant speed playback. Pressing PLAY button enables the display of video that has been searched through Searching Video.



High-speed Playback

During the playback, press Fast Rewind(▶▶) or Fast Forward(◀◀) button.



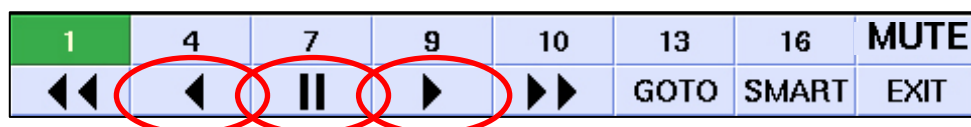
Low-speed Playback

After pressing the PAUSE button(||) during playback, press Fast Rewind (▶▶) or Fast Forward (◀◀) to have low-speed playback. It supports up to 4 different speeds, x1/2, x1/4, x1/8 and x1/16.



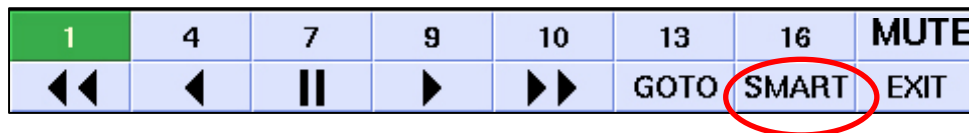
Single Step Playback

When playback is paused, pressing the Rewind (◀) or Forward (▶) button changes to Single Step Button. Pressing the Right or Left Arrow Button allows the playback of the one frame at a time.



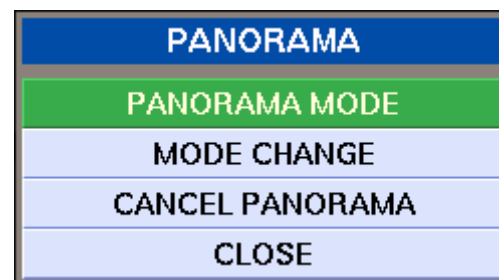
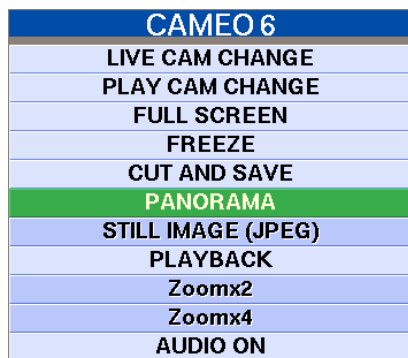
Smart Playback

It is an ideal playback for video with many movements. It is useful for fast checking of video clips. Pressing the Down Arrow button during playback or pressing the SMART button on the Down Playback Cameo menu will start the smart playback.



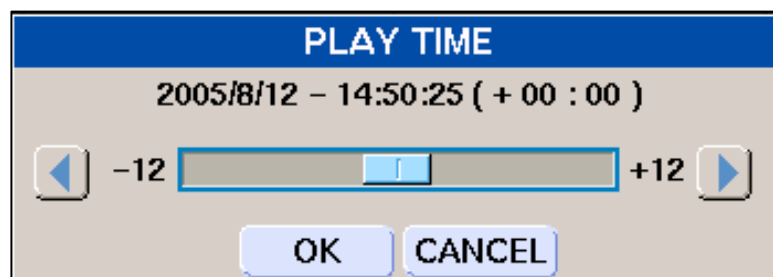
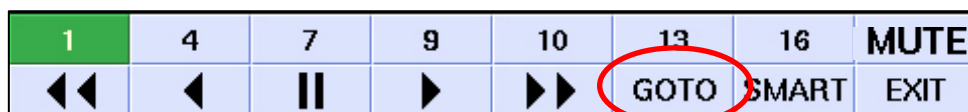
Panorama Playback

Pressing the Up Arrow button during playback or select panorama from the Cameo Menu, then select number of screens to be displayed. If you press the Up Arrow Button during the single screen display, panorama playback is activated. The Display button controls the number of splitting screens.



GoTo Time Search

It is the function that allows you to move into the selected time. It is possible to jump by hour or minutes. It can be done by pressing GOTO button on the Down Playback Cameo Menu during playback.



Playback Cameo Menu

CAMEO 6
LIVE CAM CHANGE
PLAY CAM CHANGE
FULL SCREEN
FREEZE
CUT AND SAVE
PANORAMA
STILL IMAGE (JPEG)
LIVE
Zoomx2
Zoomx4
AUDIO ON

LIVE CAM CHANGE

Live monitoring is possible during the playback by using the Playback Cameo Menu. Also, the live camera can be changed to playback by selecting a channel on the Camera Change menu of the Playback Cameo Menu.

<CAMEO 10> CAMERA CHANGE								
1	2	3	4	5	6	7	8	DEFAULT
9	10	11	12	13	14	15	16	CLOSE

PLAY CAM CHANGE

Through PLAY CAM CHANGE menu, it is possible to see another channel's video image on the channel the users have selected.

FULL SCREEN

Put selected channel into full screen.

CUT AND SAVE

Backup can be done by selecting starting and ending point while playing back. (reference 5.9 Copying Video Clip)

STILL IMAGE (JPEG)

Still image on a full screen mode can be exported into JPEG image file.

LIVE

Switches selected cameo channel into LIVE image

Zoom x2/ Zoom x4

Zoom is only active in 1 split screen mode. It is possible to zoom into 9 splits or 16 split screens. Users can maneuver the screen with the arrow keys.

AUDIO ON/OFF

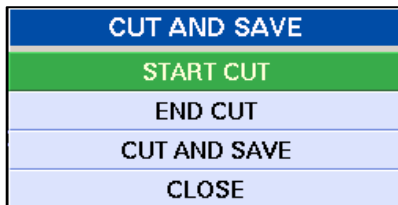
Live audio can be turned on or off by selecting AUDIO ON/OFF button
(In order to hear playback audio, audio recording has to be turned ON.)

Button	Remarks
Search	The first button to be used for search. Pressing the button displays Search Menu.
Escape	Cancel the playback and change to live screen mode.
Enter	Select Cameo from playback screen.
Fast Rewind	Playback speed up and down control for backward direction.
Fast Forward	Playback speed up and down control for forward direction.
Pause	Temporary stopping of playback.
Forward Play	Forward playback of video data.
Reverse Play	Backward playback of video data.
Up	Panorama playback for a single screen.
Down	Used for Smart Search.
PTZ	Used for PTZ Control
Display	Change the split mode of playback screen.

5.9 Copying Video Clip

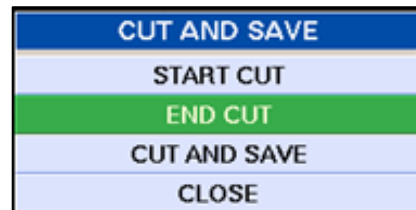
This is the function that allows you to copy a part of video clip during play back into USB or other recording media.

There are two ways of using it, with mouse or with front keys.



Using the mouse

- Select CUT AND SAVE from Cameo Menu
- Select START CUT from CUT AND SAVE
- Select END CUT for copying section
- Pressing CUT AND SAVE displays the below dialog window



Using the front keys

- Click the Backup button to set the starting time
- Press the Backup button again to set the end time
- When pressing the Backup button once again, the below dialog window will be popped up.

BACKUP		
TYPE	MANUAL BACKUP	
TARGET	CD-RW	FREE 663MB
BEGIN TIME	04/30/2007	09:00:00
END TIME	04/30/2007	09:10:44
BACKUP TITLE	output_folder	
SELECT CAMERA <input type="checkbox"/> ALL		
<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9
<input type="checkbox"/> 10	<input type="checkbox"/> 11	<input checked="" type="checkbox"/> 12
<input checked="" type="checkbox"/> 13	<input type="checkbox"/> 14	<input type="checkbox"/> 15
<input type="checkbox"/> 16		
EARLIEST RECORD	04/30/2007 09:00:00	
LATEST RECORD	04/30/2007 11:50:44	
DATA SIZE	388MB	
<input type="button" value="ESTIMATE"/> <input type="button" value="WRITE"/>		
<input type="button" value="EXIT"/>		

Make a copy after confirming the user selected channel and time frame.

Select CD or USB for storage media from TARGET.

- **DvrPlayer** is copied into backup CD or USB device.
- Backup video can be played by **DvrPlayer**.

(※ [DvrPlayer](#) : Single channel video player similar to Windows Media Player)

Button	Remarks
Backup	Pressing the button displays the Backup Menu Window. Set the Starting time and End time for Cut and Save Video during playback.

5.10 Backup Video Data

Backup to the internal CD-RW or DVD -RW

You can backup the recorded video to the built-in CD-RW or DVD-RW. Press the BACKUP button on the front or remote. The following Backup screen will appear.

BACKUP		
TYPE	MANUAL BACKUP ▾	
TARGET	CD-RW	FREE 663MB
BEGIN TIME	04/30/2007	09:00:00
END TIME	04/30/2007	09:10:44
BACKUP TITLE	output_folder	
SELECT CAMERA	<input checked="" type="checkbox"/> ALL	
<input checked="" type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 3
<input checked="" type="checkbox"/> 4	<input checked="" type="checkbox"/> 5	<input checked="" type="checkbox"/> 6
<input checked="" type="checkbox"/> 7	<input checked="" type="checkbox"/> 8	<input checked="" type="checkbox"/> 9
<input checked="" type="checkbox"/> 10	<input checked="" type="checkbox"/> 11	<input checked="" type="checkbox"/> 12
<input checked="" type="checkbox"/> 13	<input checked="" type="checkbox"/> 14	<input checked="" type="checkbox"/> 15
<input checked="" type="checkbox"/> 16		
EARLIEST RECORD	04/30/2007 09:00:00	
LATEST RECORD	04/30/2007 11:50:44	
DATA SIZE	2.06GB	
<div>ESTIMATE</div> <div>WRITE</div>		
<div>EXIT</div>		

Figure – BACKUP(1)

You can set up the Date/Time for backup and select the channels. Press the ESTIMATE button and your DVR will calculate the data size and display it in the box beside DATA SIZE. Press the WRITE button and your DVR will start burning.

NOTE: When the data size is bigger than 650MB, you will be asked to put a new CD after burning the first one.

You will be asked to confirm to backup the data to a CD.

- DvrPlayer is copied into backup CD or USB device automatically.
 - Backup video can be played by DvrPlayer.
- (※ DvrPlayer : Single channel video player similar to Windows Media Player)

Button	Remarks
Backup	Pressing the button displays the Backup Menu Window.

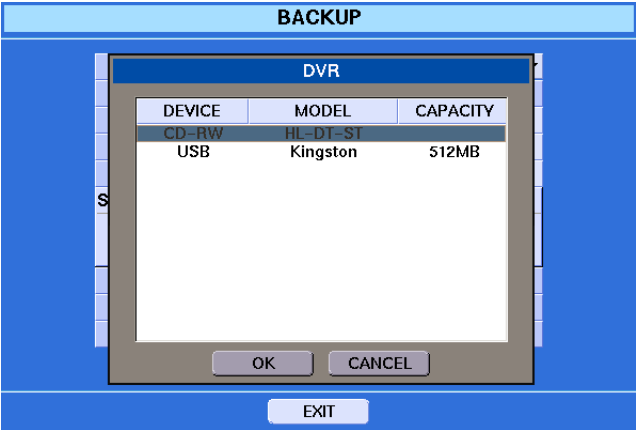


Figure – BACKUP(2)

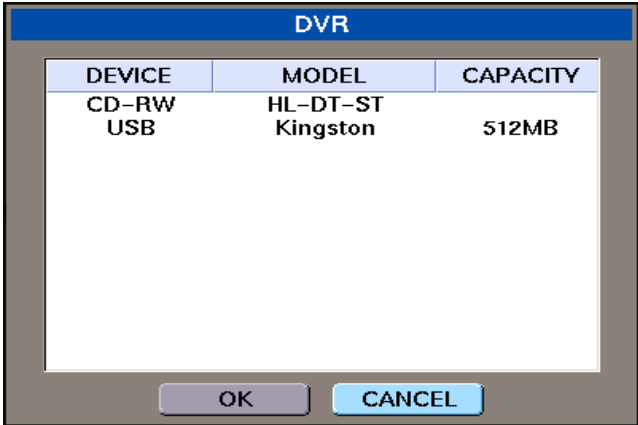


Figure – BACKUP(3)

Selecting target button shows you the device pop-up.
 Device list window shows the list of all of the devices connected to the DVR.
 The types of the devices are CD-RW/DVD-RW of SATA TYPE, USB-STICK/HDD of USB TYPE and USB CD/DVD-RW , and the vendor model name and target's capacity is shown on the list.

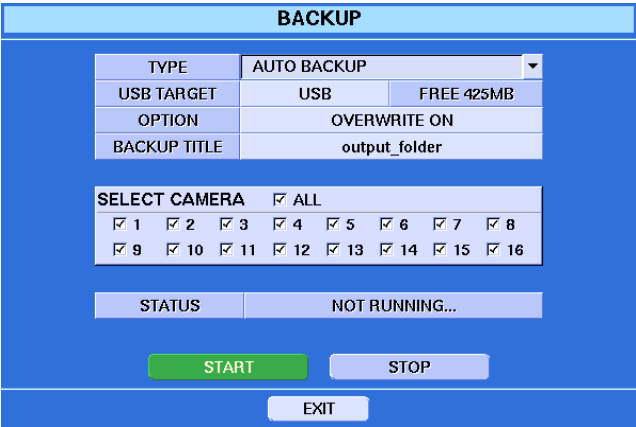


Figure – AUTO BACKUP(1)

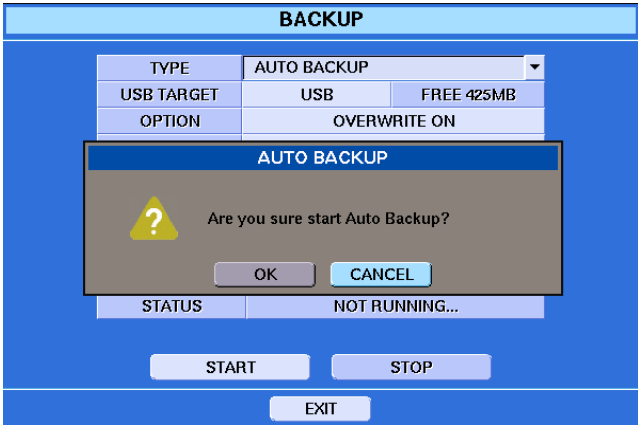


Figure – AUTO BACKUP(2)

Auto backup performs backup of the recorded data on the disk to the USB storage device automatically. Since it saves the recorded data on the disk, the HDD has to be connected and record must be running. Unlike Manual Backup, USB TARGET can only target USB storage devices. Pressing START button starts saving from current time. Actual data is made 10 minutes later, after preparation procedure, not at the point you press the START button.

5.11 Checking DVR Status

Checking Status

You can check the status of the DVR by selecting STATUS from the Top Live Cameo Menu. The status screen displays Record, Event, Network, Alarm, Disk and Key information.

STATUS					
<input checked="" type="radio"/> DAY <input type="radio"/> NIGHT <input type="radio"/> WEEKEND					
CH	VIDEO	A	CH	VIDEO	A
1	8/0,STD,NORMAL	ON	9	8/0,STD,NORMAL	ON
2	8/0,STD,NORMAL	ON	10	8/0,STD,NORMAL	ON
3	8/0,STD,NORMAL	ON	11	8/0,STD,NORMAL	ON
4	8/0,STD,NORMAL	ON	12	8/0,STD,NORMAL	ON
5	8/0,STD,NORMAL	ON	13	8/0,STD,NORMAL	ON
6	8/0,STD,NORMAL	ON	14	8/0,STD,NORMAL	ON
7	8/0,STD,NORMAL	ON	15	8/0,STD,NORMAL	ON
8	8/0,STD,NORMAL	ON	16	8/0,STD,NORMAL	ON
VIDEO : FPS(TIME / EVENT) RESOLUTION QUALITY					
<input checked="" type="radio"/> RECORD <input type="radio"/> EVENT <input type="radio"/> NETWORK <input type="radio"/> ALARM <input type="radio"/> DISK <input type="radio"/> KEY					
EXIT					

Figure – STATUS.

Chapter 6 — Advanced Settings

Before using your DVR for the first time, you will need to establish the initial settings. This includes items such as time and date, camera, audio, remote control, record mode, network and password. Your DVR can be set up using various screens and dialog boxes.

Press the MENU button to enter the setup screens. The Admin Password screen appears.

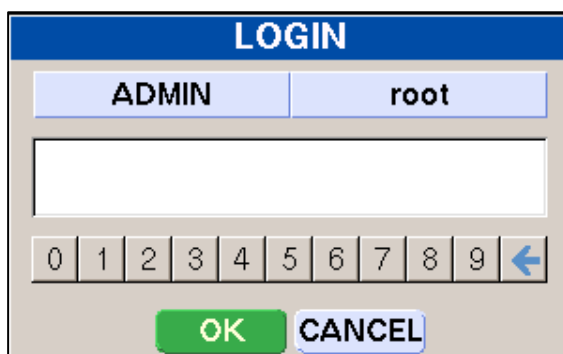


Figure — ADMIN PASSWORD.

Enter the password by pressing the appropriate combination of Camera number buttons and then the Enter button. The factory default password is 1111.
After Log-in, the menu window is displayed as below.

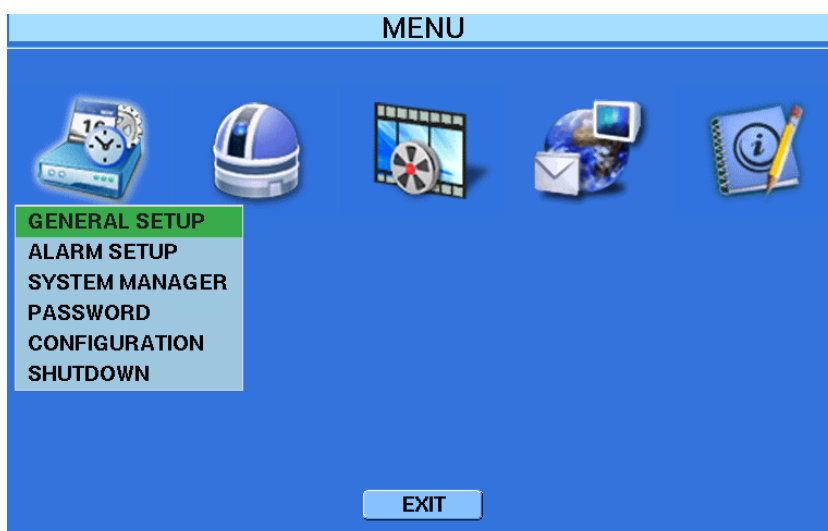


Figure — The screen image after Log-in

6.1 System Setting



Configuring System Settings

Select the SYSTEM SETUP in the main menu and it's including General Setup, Alarm Setup, System Manager, Password, Configuration and Shutdown.

GENERAL SETUP

Select the GENERAL SETUP in the main menu and the GENERAL SETUP screen displays Video Format, Language, Date Format, Time Zone, Date Display, Date, Time, Key Tone, NTP, Unit Address, Base Camera Number and Menu Timeout.

GENERAL SETUP

VIDEO FORMAT	NTSC	AUTO
LANGUAGE	ENGLISH (ENGLISH)	
DATE FORMAT	US MM / DD / YYYY	
TIMEZONE	GMT-00:00..	DST OFF
DATE DISPLAY	ON	
DATE/TIME	04/30/2007	11:56:56
NTP	OFF	
KEY TONE	ON	
UNIT ADDRESS	0	
BASE CAMERA NO.	1	
MENU TIME OUT	10 MIN	

SAVE

CANCEL

Figure – GENERALSETUP(1).

GENERAL SETUP

VIDEO FORMAT	NTSC	AUTO
LANGUAGE	ENGLISH (ENGLISH)	
DATE FORMAT	ENGLISH (ENGLISH)	
TIMEZONE	FRENCH (FRENCH)	
DATE DISPLAY	GERMAN (GERMAN)	
DATE/TIME	SPANISH (SPANISH)	
NTP	KOREAN (KOREAN)	
KEY TONE	CHINESE (CHINESE)	
UNIT ADDRESS	JAPANESE (JAPANESE)	
BASE CAMERA NO.	ITALIAN (ITALIAN)	
MENU TIME OUT	RUSSIAN (RUSSIAN)	
	DUTCH (DUTCH)	
	10 MIN	

SAVE

CANCEL

Figure – GENERAL SETUP(2).

GENERAL SETUP

VIDEO FORMAT	NTSC	AUTO
LANGUAGE	ENGLISH (ENGLISH)	
DATE FORMAT	US MM / DD / YYYY	
TIMEZONE	ASIA YYYY / MM / DD	
DATE DISPLAY	US MM / DD / YYYY	
DATE/TIME	EURO DD / MM / YYYY	
NTP	OFF	
KEY TONE	ON	
UNIT ADDRESS	0	
BASE CAMERA NO.	1	
MENU TIME OUT	10 MIN	

SAVE

CANCEL

Figure – GENERAL SETUP(3).

GENERAL SETUP

TIMEZONE

GMT-03:00 Buenos Aires, Georgetown
GMT-03:00 Brasilia
GMT-02:00 Mid-Atlantic
GMT-01:00 Cape Verde Is.
GMT-01:00 Azores
GMT-00:00 Greenwich Mean Time :Dublin, Edinbrugh, Lisbon, London
GMT-00:00 Casablanca, Monrovia
GMT+01:00 Belgrade, Bratislava, Budapest, Ljubljana, Prague
GMT+01:00 Brussels, Copenhagen, Madrid, Paris
GMT+01:00 Sarajevo, Skopje, Sofia, Warsaw
GMT+01:00 West Central Africa
GMT+01:00 Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna
GMT+02:00 Bucharest
GMT+02:00 Athens, Istanbul, Minsk

OK

CANCEL

SAVE

CANCEL

Figure – GENERAL SETUP(4).

GENERAL SETUP

VIDEO FORMAT	NTSC	AUTO
LANGUAGE	ENGLISH (ENGLISH)	
DATE FORMAT	US MM / DD / YYYY	
TIMEZONE	DST OFF	
DATE DISPLAY	ON	
DATE/TIME	11:56:56	
NTP	OFF	
KEY TONE	ON	
UNIT ADDRESS	0	
BASE CAMERA NO.	1	
MENU TIME OUT	10 MIN	

SAVE

CANCEL

TIME

HOUR	MIN	SEC
11	56	56

OK

CANCEL

Figure – GENERAL SETUP(5).

GENERAL SETUP

NTP(NETWORK TIME PROTOCOL) SETUP

SERVER
pool.ntp.org

SYNC NOW

AUTO SYNC
OFF

OK

CANCEL

SAVE

CANCEL

Figure – GENERAL SETUP(6).

Video Format:

You can select the Video Format between Auto, NTSC and PAL, according to your location. When selecting Auto, the DVR will detect the video format from the connected video sources.

NOTE: Please don't mix the video sources like NTSC and PAL cameras at the same time. It will cause errors in detecting the video format.

Language:

You can select a language from a down list menu. The DVR supports English, German, French, Spanish, Japanese, Chinese, Korean, Italian, Russian and Dutch.

Date Format:

You can select the Date Format from a down list menu and the DVR supports Asia (Year/Month/Date), US (Month/Date/Year) and EURO (Date/Month/Year).

Time Zone:

The user can select whether to use DST or not, but when cities that doesn't use DST, like Seoul, is selected, DST is forced to OFF.

If you exit from GENERAL SETUP by pressing SAVE, time is adjusted according to the GMT time slot of the TIME ZONE selected and DST usage selection.

Date Display:

You can turn on or off the Date Display. When turning on the Date Display, your DVR will display the date and time on the screen.

NOTE: When turning off the DATE DISPLAY, your DVR will not display the date and time information on the screen.

Date:

You can change the date by pressing the box beside the Date heading.

Time:

You can change the time by pressing the box beside the Time heading.

NTP:

NTP reads the UTC standard time from the NTP server and sets the DVR time according to the selected Time Zone.

pool.ntp.org is set by default but you can input other NTP servers as well.

Pressing SYNC NOW synchronizes the DVR time with the standard time.

If AUTO SYNC is on time is synchronized every day. When switching from Off to On, it must be done after SYNC NOW is performed.

Key Tone:

You can turn on or off the internal buzzer. Whenever pressing any button on the front, the DVR will make buzzer sound.

Unit Address:

You can set up an ID for your DVR to distinguish the unit when using multiple DVRs in the same place.

Base Camera Number:

You can set the base camera number. For example, if you set "111" on the base camera number, the camera number on the screen will be displayed from "111".

Menu Time Out:

You can set up the menu time-out duration up to 10 minutes by highlighting the box beside MENU TIME OUT and pressing the enter button.

You can save your changes and return to the main menu by highlighting SAVE and pressing the enter button. Selecting CANCEL exits the screen without saving the changes.

ALARM SETUP

Select the ALARM SETUP in the main menu and press the enter button. The ALARM SETUP screen displays the alarm outputs, 1-4.

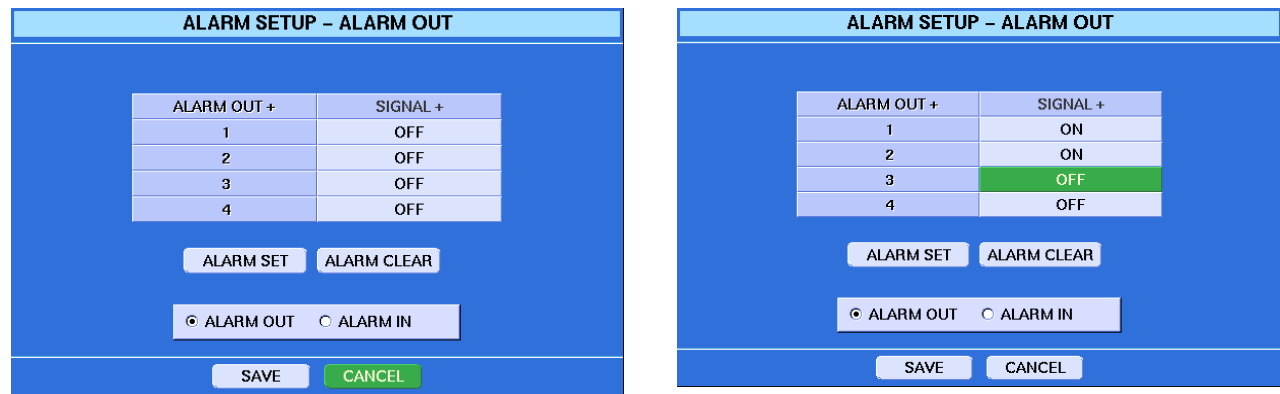


Figure – ALARM TYPE-ALARM OUT.

You can enable or disable each alarm output by pressing the box below SIGNAL+ and select the proper alarm type between on and off. When pressing the SIGNAL+ heading, the selection will be applied to all alarm outputs.

Select the ALARM IN button and press the enter button to select the type for alarm in. The ALARM IN screen displays the alarm inputs in groups of four: 1-4, 5-8, 9-12 and 13-16.

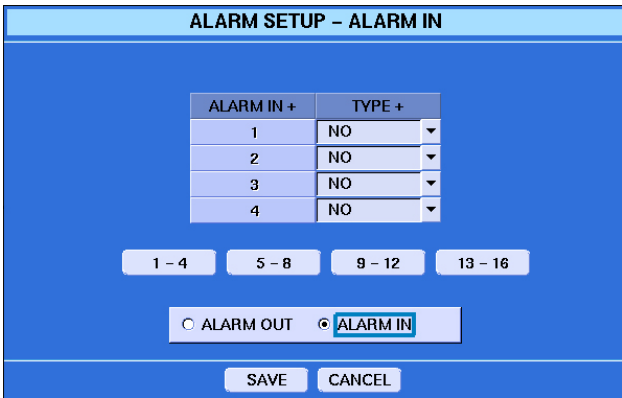


Figure – ALARM TYPE-ALARM IN.

You can select proper alarm type from described earlier.

When pressing the ALARM CLEAR button, the system will clear the triggered alarms. The ALARM SET button activates the alarm settings again.

You can save your changes and return to the main menu by highlighting SAVE and pressing the button. Selecting CANCEL exits the screen without saving the changes.

SYSTEM MANAGER

Select the SYSTEM MANAGER in the main menu and press the enter button. The HDD SETUP screen will display four pages, INSTALL, DISK MANAGER, S/W UPGRADE and SYSTEM ENVIRONMENT.

INSTALL

NO.	TYPE	SIZE	STATUS	INSTALL
1	HDD	N/A	N/A	NONE
2	HDD	N/A	N/A	NONE
3	HDD	N/A	N/A	NONE
4	CD-RW	-	-	ERASE

USB RESET USB FORMAT

EARLIEST RECORD 04/30/2007 09:00:00
LATEST RECORD 04/30/2007 11:59:59

START DISK CHECK

◀ INSTALL ◀ DISK MANAGER ◀ S/W UPGRADE ◀ SYS. ENVR

SAVE CANCEL

Figure – INSTALL.

The INSTALL page will show the HDD (Hard Disk Drive) status and you can initialize new hard disk drives by selecting the boxes below INSTALL and pressing the enter button. Erase can be done when CD/DVD-RW is in the tray.

NOTE: You have to initialize the disks when installing new hard disk drives.

SYSTEM MANAGER - INSTALL

NO.	TYPE	SIZE	STATUS	INSTALL
1	HDD	N/A	N/A	NONE
2	HDD	N/A	N/A	NONE
3	HDD	N/A	N/A	NONE
4	CD-RW	-	-	ERASE

USB RESET USB FORMAT

EARLIEST RECORD 04/30/2007 09:00:00
LATEST RECORD 04/30/2007 11:59:59

START DISK CHECK

◀ INSTALL ◀ DISK MANAGER ◀ S/W UPGRADE ◀ SYS. ENVR

SAVE CANCEL

SYSTEM MANAGER - INSTALL

NO.	TYPE	SIZE	STATUS	INSTALL
1	HDD	N/A	N/A	NONE
2	HDD	N/A	N/A	NONE
3	HDD	N/A	N/A	NONE
4	CD-RW	-	-	ERASE

USB RESET USB FORMAT

EARLIEST RECORD 04/30/2007 09:00:00
LATEST RECORD 04/30/2007 11:59:59

START DISK CHECK

◀ INSTALL ◀ DISK MANAGER ◀ S/W UPGRADE ◀ SYS. ENVR

SAVE CANCEL

The INSTALL-CHECK screen will display the earliest and latest recording information and you can check the files in the period, from BEGIN TIME to END TIME by highlighting the START DISK CHECK and pressing the enter button.

DISK MANAGER

Select the second page, HDD SETUP – OVERWRITE and the following screen will appear.

Figure – HDD SETUP – OVERWRITE(1)

Figure – HDD SETUP – OVERWRITE(2)

You can turn on or off the overwriting option by selecting the box beside HDD OVERWRITE.

NOTE: When turning off the overwriting, your DVR will stop recording when the disk is full.

When turning off the overwriting, the boxes USED SPACE will be activated.

You can set up the HDD usage by USED SPACE. Refer to the screens below.

Figure – HDD SETUP – OVERWRITE(3).

NOTE: When setting up the USED SPACE to 80%, your DVR will stop recording at 80%. Your DVR will check the settings of USED SPACE automatically and record as much as possible.

Your DVR has 3 different warning methods when the disk is full but the DISK FULL WARNING must be turned on in the WARNING METHOD menu.

You can assign an alarm out by selecting the box beside DISK FULL ALARM and turn on the buzzer or OSD (On Screen Display) warning message.

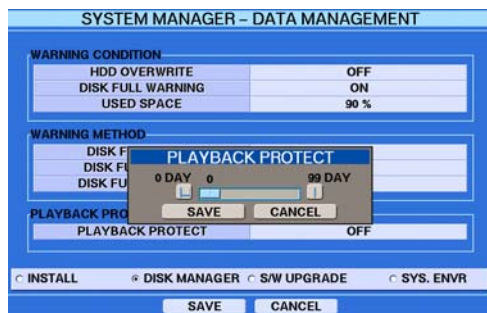


Figure –PLAYBACK PROTECT

Playback protect protects data in a certain time interval.
If set to 3 days, data up to 3 days period is not overwritten.
Can be set from 0~99 days and if set to 0, playback protect is off

S/W UPGRADE

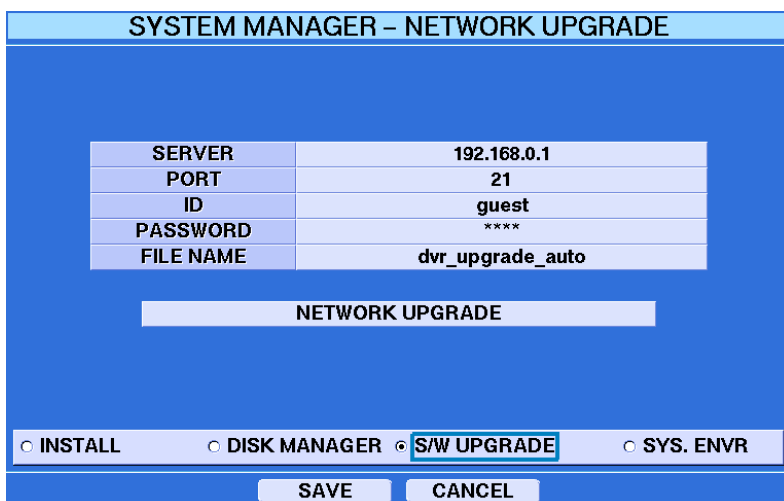


Figure – S/W UPGRADE

SYSTEM ENVIRONMENT

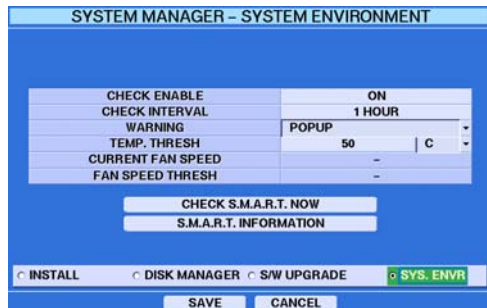


Figure – SYS. ENVR

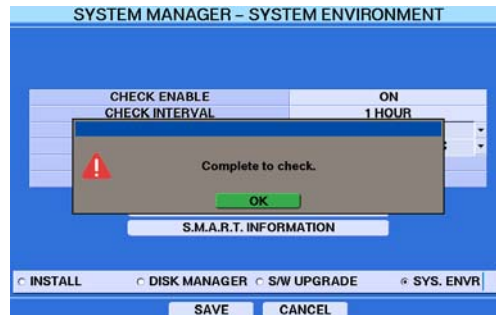


Figure – S.M.A.R.T CHECK

If CHECK ENABLE is on, HDD status and FAN SPEED can be checked.

It is divided into check interval, temp.thresh and warning

HDD temperature and Fan Speed can be checked according to the configured time interval and warning message can be set to popup, buzzer and off.

Clicking CHECK S.M.A.R.T NOW checks the S.M.A.R.T status.

HDD INFORMATION						
NO.	TYPE	CAPACITY	BAD SECTOR	TEMP.	S.M.A.R.T.	DETAIL
1	HDD	78GB	0	33 C	GOOD	▶
2	HDD	-	-	-	-	▶
3	HDD	-	-	-	-	▶
4	HDD	-	-	-	-	▶
5	USB	511MB	-	-	NOT WORKING	▶

Figure – S.M.A.R.T. INFORMATION(1)

HDD INFORMATION					
Attribute Name	Value	Worst	Thresh	When Failed	Raw Value
Spin_Up_Time	196	173	063	-	22398
Start_Stop_Count	253	253	000	-	449
Reallocated_Sector_Ct	253	253	063	-	0
Seek_Error_Rate	253	251	000	-	0
Seek_Time_Performance	248	231	187	-	43033
Power_On_Hours	228	228	000	-	8849
Spin_Retry_Count	253	252	157	-	0
Calibration_Retry_Count	253	252	223	-	0
Power_Cycle_Count	253	253	000	-	242
Unknown_Attribute	100	100	000	-	0
Unknown_Attribute	067	053	000	-	572325921
Power-Off_Retract_Count	253	253	000	-	0
Load_Cycle_Count	253	253	000	-	0
Temperature_Celsius	033	253	000	-	33
Hardware_ECC_Recover	253	252	000	-	5564

Figure – S.M.A.R.T. INFORMATION(2)

HDD information shows capacity, bad sector, temp, S.M.A.R.T status of the HDD.

Going into detail shows you more detailed information about the HDD.

PASSWORD SETUP

An Administrator password is required to turn the system off, enter the setup screen, load default setups, clear all data, change system date and time and change the Administrator password. Highlight Password in the Main menu and press to enter the Password screen.

PASSWORD SETUP			
1	root	ADD	DEL
2	NONE	ADD	DEL
3	NONE	ADD	DEL
4	NONE	ADD	DEL
5	NONE	ADD	DEL
6	NONE	ADD	DEL

☒ ADMIN ☐ SUPERUSER ☐ USER

SAVE CANCEL

Figure — PASSWORD SETUP.

The PASSWORD SETUP screen displays three different user authorization, ADMIN, Superuser and User. Highlight the ADD or DEL buttons and press the enter button to add or delete each user. When adding a new user account, you will be asked to enter the new password and to confirm it. When deleting a user account, you will be asked to confirm.

NOTE: The Admin, Superuser and User passwords are composed of up to eight digits using the number buttons. The default Admin password is : 1111.

Changing the name of the first user is allowed, but you cannot erase it.

CAUTION: Don't delete the default Admin account before adding a new account. If deleting the default Admin before adding at least one Admin account, you can't access the Menu to set up the system.

NOTE: Superuser can use all functions but can't access the Menu and Record to change the settings. User can use PTZ and Pause buttons only.

CONFIGURATION

CONFIGURATION – DVR SYSTEM

You can save configurations in the DVR system or CD/USB and load from DVR system or CD/USB. Highlight the CONFIG in the main menu and press the enter button. The following screen will appear.

SLOT	SAVE DATE	LOAD	SAVE	DEL
DEFAULT		LOAD	SAVE	DEL
		LOAD	SAVE	DEL
		LOAD	SAVE	DEL
		LOAD	SAVE	DEL
		LOAD	SAVE	DEL
		LOAD	SAVE	DEL
		LOAD	SAVE	DEL
		LOAD	SAVE	DEL

☒ DVR SYSTEM
 ☐ USB/CD

EXIT

Figure – CONFIGURATION(1).

SLOT	SAVE DATE	LOAD	SAVE	DEL
DEFAULT		LOAD	SAVE	DEL
			SAVE	DEL
			SAVE	DEL
			SAVE	DEL
			SAVE	DEL
			SAVE	DEL
			SAVE	DEL
			SAVE	DEL

☒ DVR SYSTEM
 ☐ USB/CD

EXIT

DEFAULT

☒ CAMERA

☒ RECORD

☐ SYSTEM

☐ NETWORK

OK CANCEL

Figure – CONFIGURATION(2).

SAVING CONFIGURATION:

Select an empty box below SLOT and press the enter button. The virtual keyboard will appear and you can type the title. And, press the SAVE button. Then, the current configuration will be saved and the Save Date will be displayed.

DELETING CONFIGURATION:

Select one of saved configuration files and press the DEL button to delete it.

LOADING CONFIGURATION:

Select one of saved configuration files and press the LOAD button and you can select the configuration for Camera, Record, System and Network individually. Press the enter button after selecting the configuration that you want to load.

NOTE: The DEFAULT is the factory default and your DVR will be initialized to the factory default when loading the DEFAULT.

CONFIGURATION – CD-RW

Select the 2nd page, CD-RW. The below screen will appear.



Figure – CONFIGURATION -CD-RW.

You can save the current configuration to the CD/USB or you can also load the saved configuration from the CD/USB.

NOTE: You can apply the same configuration to other DVR systems by using this function.

SHUTDOWN

You can restart or shutdown your DVR by highlight the SHUTDOWN in the Main menu and pressing the enter button. The following screen will appear.

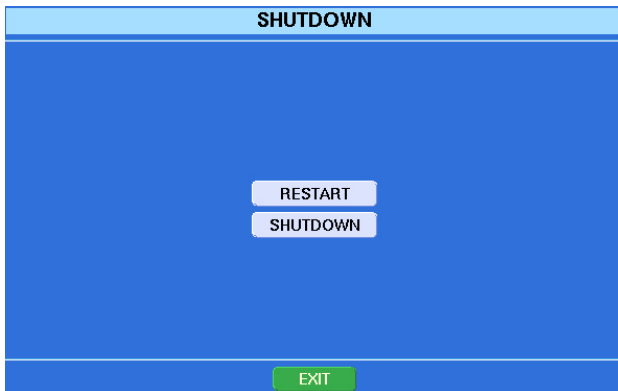


Figure1 — SHUTDOWN(1)

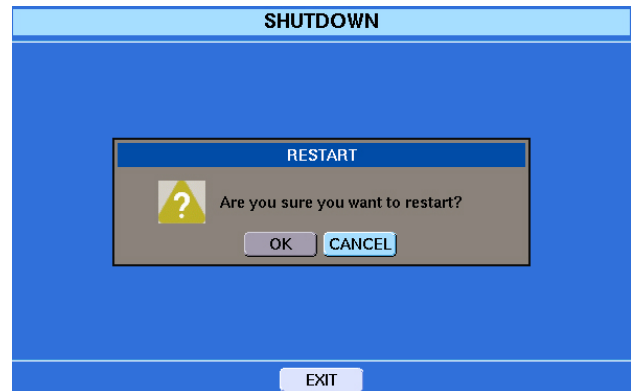


Figure – SHUTDOWN(2).

Select the RESTART in the SHUTDOWN menu and press the enter button. You will be asked to confirm restarting the system.

You can also shutdown the system by pressing the SHUTDOWN button.

6.2 Camera Setting



This is the menu for Camera Setup, PTZ setup, Spot Setup, Sequence, Monitor Setup and Private Zone.

SETUP

Highlight SETUP in the main menu and press the enter button. The SETUP screen appears.



Figure – SETUP (1)

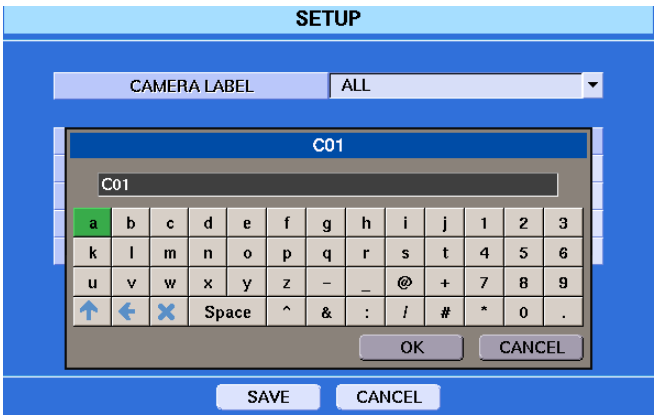


Figure – SETUP (2)

The SETUP screen displays the camera label and the camera inputs in groups of four: 1-4, 5-8, 9-12 and 13-16.

You can display or hide the camera number and camera name by selecting ALL, NUMBER, NAME or OFF from a list on CAMERA LABEL.

You can assign names to each camera by highlighting the boxes below NAME and pressing the ENTER button. A virtual keyboard allows you to enter camera names. The camera name can be composed of 13 digits.

NOTE: When selecting the OFF, the DVR doesn't display the camera number and name.

You can connect or disconnect the video input by highlighting the boxes below INSTALL+ and pressing the ENTER button.

NOTE: The ENTER button allows you to select ON or OFF.

NOTE: When selecting OFF, the DVR disconnects the video source so the camera can't be displayed and recorded.

You can hide or display the video of the camera by highlighting the boxes below HIDDEN+ heading and pressing the ENTER button. Select ON or OFF by pressing the ENTER button.

You can save your changes by highlighting SAVE and pressing the ENTER button. Selecting CANCEL exits the screen without saving the changes.

ADJUSTMENT

Highlight ADJUSTMENT in the main menu and press the ENTER button. The ADJUSTMENT screen appears.

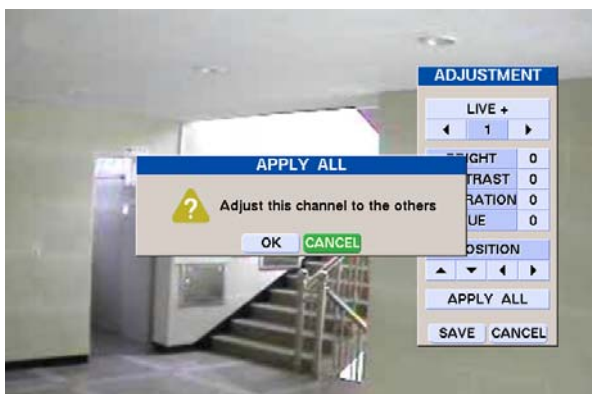


Figure – ADJUSTMENT.(1)

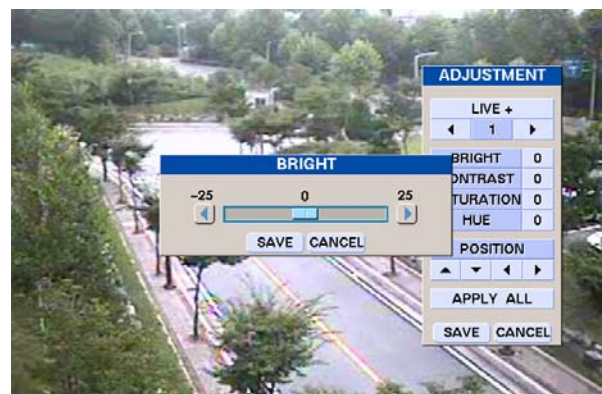


Figure – ADJUSTMENT(2).

The ADJUSTMENT screen displays the brightness, contrast, saturation, hue and position.

You can select the live or recorded video by highlighting the box below LIVE+ and pressing the ENTER button. The channel can be selected by highlighting the arrow buttons, ◀ or ▶ and pressing the ENTER button.

You can adjust the brightness, contrast, saturation and hue by highlighting the headings.

NOTE: Highlight the SAVE button and press the ENTER button to save your changes in the sub-menu.

You can change the position of the screen by highlighting the arrow buttons of the POSITION and pressing the enter button.

You can apply your adjustments to all the channels by using the APPLY ALL button.

PTZ SETUP

Highlight PTZ SETUP in the main menu and press the enter button. The PTZ SETUP screen appears.

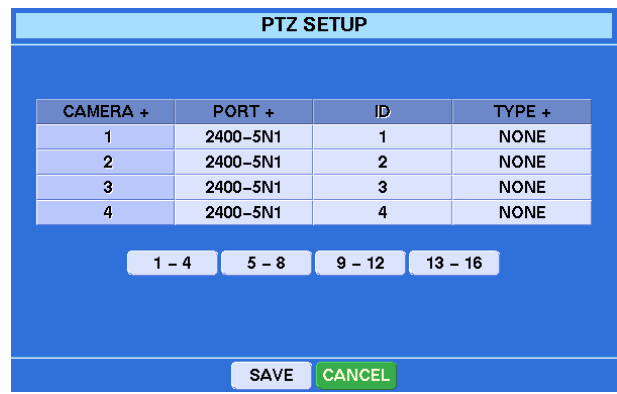


Figure – PTZ SETUP(1).

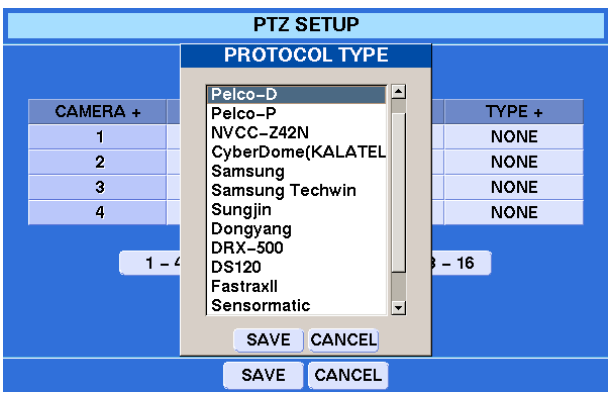


Figure – PTZ SETUP(2).

The PTZ SETUP screen displays the camera inputs in groups of four: 1-4, 5-8, 9-12 and 13-16.

You can set up the baud rate, data bit, parity and stop bit by highlighting the boxes below PORT+ and press the enter button.

You can set up IDs for each channel on the ID heading.

NOTE: The IDs must be matched with PTZ units to control the PTZ units.

Selecting the TYPE+ causes a list of controllable cameras to display. Select your camera from the list and press the enter button.

You have to connect the camera to the RS485 terminal on the back of the DVR by following the camera manufacturer's instructions.

SPOT SETUP

Your DVR can set up 3 spot monitors and assign cameras to each spot. Highlight the SPOT SETUP in the main menu and press the enter button. The following SPOT SETUP screen will appear.

NO.	SPOT 1	SPOT 2	SPOT 3
CAMERA	ON	ON	ON
DEFAULT	2	10	14
SEQUENCE	ON	ON	ON
INTERVAL	2 SEC	2 SEC	2 SEC
POPUP	OFF	OFF	OFF

SAVE CANCEL

Figure – SPOT SETUP(1).

NO.	SPOT 1	SPOT 2	SPOT 3
SEQUENCE	ON	ON	OFF
DEFAULT	2	10	14
SEQUENCE	ON	ON	ON
INTERVAL	2 SEC	2 SEC	2 SEC
POPUP	OFF	OFF	OFF

SPOT : 1

☐ ALL

☒ 1 ☒ 2 ☒ 3 ☒ 4 ☒ 5 ☒ 6 ☒ 7 ☒ 8

☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16

OK CANCEL

SAVE CANCEL

Figure – SPOT SETUP(2).

You can turn on or off the Rotation for the assigned cameras for each spot. Turn on or off the ROTATE by highlighting the box below ROTATE and pressing the enter button.

You can assign cameras to each spot by highlighting the box below CAMERA+ and press the enter button. You can select cameras by checking the camera numbers on the popup screen. Refer to the Figure 69 – SPOT SETUP(2).

You can set up the rotating dwell time by highlighting the box below INTERVAL+ and pressing the enter button. It can be set up to 256 seconds.

Default+ means the channel number shown when sequence is off and this channel is selected within the sequence.

When turning on Popup, channels that are having events will be popped up to the assigned spot monitor.

NOTE: Same cameras can't be shown on the spot monitors at the same time. When selecting ROTATE-ON and all cameras for all of 3 spots, the spot 1 will display camera number 1, spot 2 – camera number 2 and spot 3 – camera number 3. When selecting ROTATE – ON, all cameras for all of 3 spots will be affected by the different time interval in rotating the cameras.

SEQUENCE

You can set up the dwell time and the sequence for rotation. Select the SCREEN ROTATE in the main menu and press the enter button. The following screen will appear.

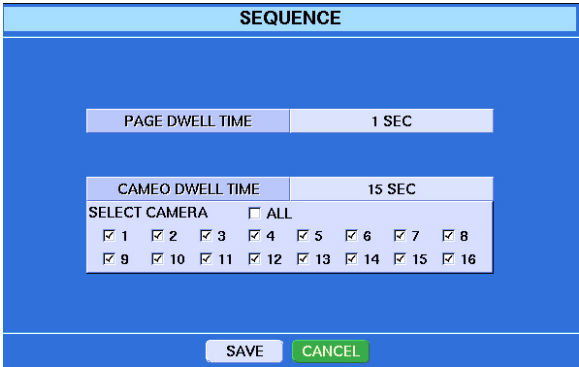


Figure – SEQUENCE(1).

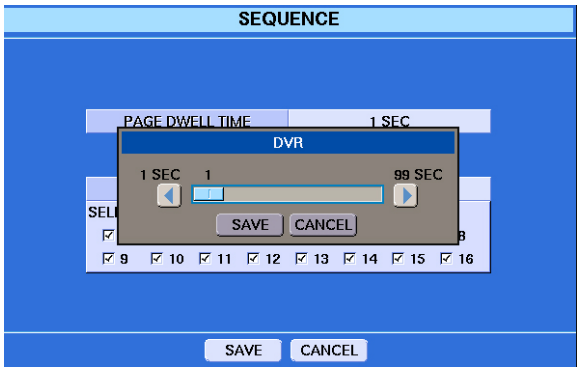


Figure – SEQUENCE(2).

The page dwell time is for page sequence in case of 4 or 9 split screens.

You can select cameras for cameo sequence and set up the dwell time.

NOTE: The cameo sequence means rotating the selected cameras on a camera channel of split screens. The cameras being displayed on the other channels will not be rotated on the cameo sequence channel.

MONITOR SETUP

Select the MONITOR SETUP in the main menu and press the enter button. The Monitor Setup screen will be displayed.



Figure – MONITOR SETUP.

Resolution:

VGA(CCTV) resolution can be modified.

Resolution settings with LCD written at the back (e.g. 800 X 600/60Hz LCD) can only be seen through VGA monitors.

BORDER :

color of border lines between images can be modified into black, gray, and white.

ALPHA BLENDING:

transparency ratio for all menu screens can be modified.

POSITION:

by using ▲, ▼, ◀, ▶ buttons the whole screen position can be modified to fit inside a monitor

PRIVATE ZONE

Select the PRIVATE ZONE in the main menu and press the enter button. The Monitor Setup screen will be displayed.



The PRIVATE ZONE SETUP screen displays configuration options for private zones. It includes a table for enabling zones and selecting colors, and a table for setting zones for individual cameras.

ZONE ENABLE	LIVE
ZONE COLOR	GRAY

CAMERA +	ZONE
1	OFF
2	OFF
3	OFF
4	OFF

Navigation buttons: 1 - 4, 5 - 8, 9 - 12, 13 - 16

SAVE CANCEL

Figure – PRIVATE ZONE.

ZONE ENABLE:

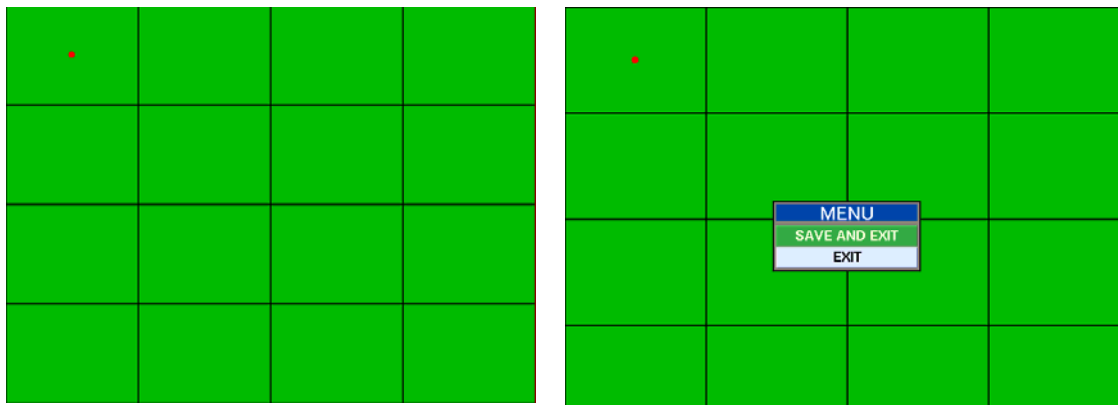
Private Zone can be enable for LIVE only or for both LIVE + PLAYBACK.

ZONE COLOR :

choices of gray, black, white, and blue.

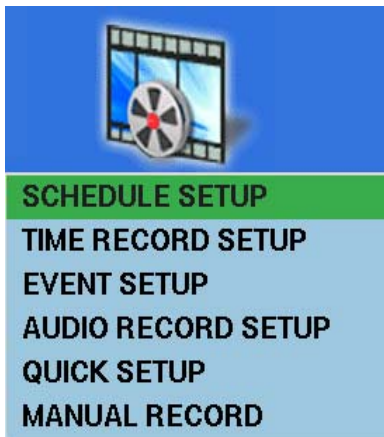
CAMERA ZONE setup

For each camera a zone can be created. Following screen will be shown after pressing Zone setup button.



After setting up the zone to save and exit from the setup screen press ESC button (or right mouse button).

6.3 Record Setting



Configuring Recording Settings

Your DVR offers a variety of flexible recording modes. You can set it up to record all the time or to record events only. It can be set up to continue recording once the hard disk drive is full by recording over the oldest video, or you can set it up alert you when the hard disk is full and stop recording.

SCHEDULE SETUP

Highlight SCHEDULE SETUP in the main menu and press the enter button. The SCHEDULE SETUP screen appears.

	FROM	TO
NIGHT	18:00:00	06:00:00
WEEKEND	SAT	SUN
HOLIDAY	0 DAYS	▶

RESOLUTION	STD	▶
AFTER IMAGE REMOVAL		OFF

SAVE CANCEL

Figure – SCHEDULE SETUP.

CAMERA +	RESOLUTION +
1	STD ▼
2	STD ▼
3	STD ▼
4	STD ▼

1 - 4 5 - 8 9 - 12 13 - 16

SAVE CANCEL

Figure – SCHEDULE SETUP – RESOLUTION.

You can set up the night time period by highlighting the boxes beside NIGHT and pressing the enter button.

NOTE: The day time period is changed automatically, according to the setting of the night time.

You can set up weekend by pressing the boxes beside WEEKEND and add or delete holidays in the HOLIDAY SETUP menu by highlighting the ▶ button in the HOLIDAY heading and pressing the enter button.

You can select the resolution between standard, high and highest by highlighting the box beside RESOLUTION and pressing the enter button.

If you want to change the resolution of certain cameras, press the ▶ button in the RESOLUTION heading.

CAUTION: Your changes in the main SETUP screens are applied to every channels. If you want to change certain details, enter into the sub-menu by highlighting the detail(▶) button and pressing the enter button.

NOTE: Whenever changing the resolution, it affects the recording speed on Time Record Setup.

TIME RECORD SETUP

Highlight TIME RECORD SETUP in the main menu and press the enter button. The TIME RECORD SETUP screen will be displayed.



Figure – TIME RECORD SETUP.



Figure – TIME RECORD SETUP – SPEED AND QUALITY.

The TIME RECORD SETUP screen displays recording settings for Day, Night and Weekend.

Highlight the RECORD+ heading for DAY, NIGHT, or WEEKEND and press the enter button to toggle between ON and OFF.

You can set up the recording speed and select the recording quality between LOW, NORMAL, HIGH and HIGHEST.

NOTE: To select the recording speed, use the ▲ or ▼ buttons in the sub-menu.

You can change the certain details by highlighting the DETAIL(▶) button and pressing the enter button.

EVENT SETUP

EVENT INPUT

Highlight EVENT SETUP in the main menu and press the enter button. The EVENT SETUP screen appears.

The DVR can be set to react to events differently. Each sensor can be assigned to a camera with different recording speed, video quality and dwell time.

EVENT SETUP				
EVENT INPUT				
INPUT	MOTION	ALARM IN	VIDEO LOSS	TEXT-IN
ON	ON	OFF	ON	OFF
▶				
EVENT OUTPUT				
RECORD	SPEED	QUALITY	POST REC	
ON	30	HIGHEST	10 SEC	
▶				
ACTION	ALARM	IMAGE	PRESET	DISPLAY
OFF	ON	OFF	OFF	2
▶				
<div>SAVE</div> <div>CANCEL</div>				

Figure – EVENT SETUP.

Highlight the INPUT, MOTION, VIDEO LOSS or TEXT-IN in the EVENT INPUT menu and press the enter button to toggle between ON and OFF.

NOTE: When turning off the input, you can't select event inputs, MOTION, ALARM IN, VIDEO LOSS or TEXT-IN.

Highlight the ▶ button in the EVENT INPUT menu to change the details for certain cameras. The following EVENT SETUP – INPUT screen will appear.

EVENT SETUP - INPUT						
CAMERA +	EVENT +	MOTION		ALARM IN +	VIDEO LOSS +	TEXT-IN +
		SENSE +	AREA +			
1	ON	2	ON	ON	ON	OFF
2	ON	2	ON	ON	ON	OFF
3	ON	2	ON	ON	ON	OFF
4	ON	2	ON	ON	ON	OFF

1 - 4

5 - 8

9 - 12

13 - 16

SAVE

CANCEL

Figure – EVENT SETUP – INPUT.

MOTION SETUP

You can turn on or off motion events for each camera by toggling On and Off at box below EVENT+. Your DVR has 5 levels of sensitivity for motion and you can assign the sensitivity level by pressing the box below SENSE+. The motion detection area can be set by pressing the box below AREA+. The following motion detection area setup screen will appear.

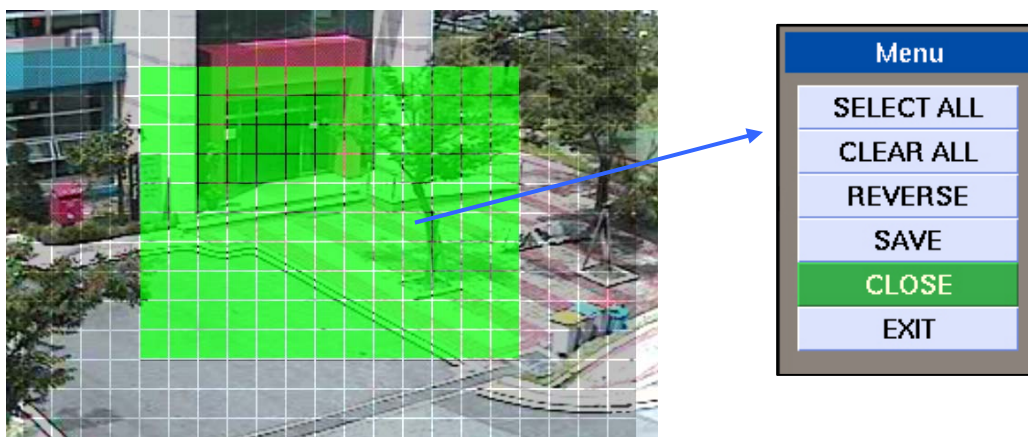


Figure – MOTION DETECTION AREA.

When getting into the motion detection area screen, a Blue dot pointer will be displayed on the grid at the very top-left part. If pressing the enter, the dot will turn to Red color and it will arrow to select grids and set up the motion area by pressing Up, Down, Left and Right cursor buttons on the front panel or remote.

NOTE: When the dot color is Blue, you can move that pointer by pressing the arrow buttons without selecting the grids.

NOTE: When the dot color is Red, you can select the grids or erase the selected grids by pressing the arrow buttons.

When pressing MENU button on the front panel or remote in the Motion Detection Area, the below pop-up menu will be displayed.



You can select all grids by pressing SELECT ALL or clear selected grids by pressing CLEAR ALL. When pressing Reverse, the selected grids will be cleared and unselected grids will be selected. You can save the selected area, close the above pop-up menu or exit from the Motion Detection Area Setup Menu from the above pop-up menu.

ALARM IN SETUP

Highlight the box below ALARM IN+ for a channel that you want to set up and press the enter button. The following ALARM IN screen will appear.

EVENT SETUP - INPUT																		
MOTION																		
CAMERA +	ALARM IN : 1												TEXT-IN +					
1	<input type="checkbox"/> ALL	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input checked="" type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10	<input type="checkbox"/> 11	<input type="checkbox"/> 12	<input type="checkbox"/> 13	<input type="checkbox"/> 14	<input type="checkbox"/> 15	<input type="checkbox"/> 16	OFF
2																		OFF
3																		OFF
4																		OFF
<input type="button" value="OK"/> <input type="button" value="CANCEL"/>																		
<input type="button" value="1 - 4"/> <input type="button" value="5 - 8"/> <input type="button" value="9 - 12"/> <input type="button" value="13 - 16"/>																		
<input type="button" value="SAVE"/> <input type="button" value="CANCEL"/>																		

Figure – EVENT SETUP – INPUT - ALARM IN.

You can select Alarm Inputs which will be associated with the camera. When having alarm from the associated Alarm Inputs, the Event actions associated with the camera will be triggered. Also, if turning on Record in EVENT OUTPUT menu, the associated events will be recorded when alarm is activated.

VIDEO LOSS SETUP

Highlight the box below VIDEO LOSS+ for a channel that you want to set up and press the enter button. The following VIDEO LOSS screen will appear.

EVENT SETUP - INPUT																		
MOTION																		
CAMERA +	VIDEO LOSS : 1												TEXT-IN +					
1	<input type="checkbox"/> ALL	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10	<input type="checkbox"/> 11	<input type="checkbox"/> 12	<input type="checkbox"/> 13	<input type="checkbox"/> 14	<input type="checkbox"/> 15	<input type="checkbox"/> 16	OFF
2																		OFF
3																		OFF
4																		OFF
<input type="button" value="OK"/> <input type="button" value="CANCEL"/>																		
<input type="button" value="1 - 4"/> <input type="button" value="5 - 8"/> <input type="button" value="9 - 12"/> <input type="button" value="13 - 16"/>																		
<input type="button" value="SAVE"/> <input type="button" value="CANCEL"/>																		

Figure – EVENT SETUP – INPUT - VIDEO LOSS.

You can select a single or multiple VIDEO LOSS camera channels which will be associated with the camera. When having Video Loss from the associated Video Loss camera channels, the Event actions associated with the camera will be triggered. Also, if Record in EVENT OUTPUT menu is on, the associated events will be recorded.

EVENT OUTPUT

EVENT RECORD SETUP

You can select the RECORD ON/OFF, SPEED, QUALITY or POST RECORDING dwell time in the EVENT OUTPUT menu by highlighting the below boxes and press the enter button.

NOTE: The recording speed in the EVENT OUTPUT menu will be associated with the resolution setting in the SCHEDULE SETUP menu. When selecting the STD resolution in the SCHEDULE SETUP menu, the maximum speed will be 15fps. In case of selecting HIGH resolution, the maximum speed will be 8fps.

You can select the quality by toggling between LOW, NORMAL, HIGH and HIGHEST and this selection is not related to the recording frame per seconds. When selecting Highest, it gives better image quality but the file size will be bigger than LOW, NORMAL or HIGH.

You can set up the Post Recording time up to 100 seconds by highlighting the below box and pressing the enter button.

Highlight the ► button and pressing the enter button to change the details in the sub-menu. The following screen will appear.

EVENT RECORD				
MODE	RECORD +	SPEED +	QUALITY +	DETAIL
DAY	ON	8	HIGH	►
NIGHT	ON	8	HIGH	►
WEEKEND	ON	8	HIGH	►

POST RECORD TIME: 10 SEC ►

SAVE CANCEL

Figure – EVENT SETUP – RECORD.

EVENT RECORD - DAY		
CAMERA +	SPEED +	QUALITY +
1	8	HIGH
2	8	HIGH
3	8	HIGH
4	8	HIGH

1 - 4 5 - 8 9 - 12 13 - 16

SAVE CANCEL

Figure – EVENT SETUP-RECORD-
SPEED AND QUALITY.

CAMERA +	POST RECORD +
1	10 SEC
2	10 SEC
3	10 SEC
4	10 SEC

1 - 4 5 - 8 9 - 12 13 - 16

SAVE CANCEL

Figure – EVENT SETUP-RECORD-POST RECORD TIME

You can turn on or off the recording and change the speed and image quality for Day, Night and Weekend. Also, you can change the settings for certain cameras in the sub-menu by highlighting the ► button and pressing the enter button.

Post record of each channel can be configured individually by pressing the detail button in postREC.

EVENT ACTION SETUP

You can set up event actions by toggling between ON and OFF for Alarm, Image or Preset and you can also set up the alarm dwell time by highlighting the DISPLAY button and press the enter button.

Highlight the ► button and press the enter button to change certain details in the sub-menu. The following EVENT SETUP-ACTION screen appears.

CAMERA +	ALARM +	IMAGE +	PRESET +	DISPLAY +
1	1 (1 / 2)	OFF	OFF	2 SEC
2	2 (1 / 2)	OFF	OFF	2 SEC
3	3 (1 / 2)	OFF	OFF	2 SEC
4	4 (1 / 2)	OFF	OFF	2 SEC

1 - 4 5 - 8 9 - 12 13 - 16

EVENT MESSAGE	ON
EVENT POPUP	OFF
EVENT BUZZER	OFF

SAVE CANCEL

Figure – EVENT SETUP-ACTION(1).

CAMERA +	ALARM +	IMAGE +	PRESET +	DISPLAY +
1	1 (1 / 2)	OFF	OFF	2 SEC
2				SEC
3				SEC
4				SEC

ALARM OUT 1

ALARM OUT	DELAY	DURATION
1	1 SEC	2 SEC

OK CANCEL

EVENT MESSAGE	ON
EVENT POPUP	OFF
EVENT BUZZER	OFF

SAVE CANCEL

Figure – EVENT SETUP-ACTION(2).

You can turn on or off Alarm, Image or Preset for all the channels at the same time by highlighting the headings, ALARM+, IMAGE+ or PRESET+ and pressing the enter button.

You can associate the Alarm Out, Alarm Delay and Dwell time for each camera.

You can also associate presets for installed PTZ cameras and set up the dwell time up to 100 seconds by highlighting the DISPLAY+ and pressing the enter button.

NOTE: When turning on the IMAGE, your DVR will send the event images to the client software (SMS: Server Management Software).

You can turn on or off the EVENT MESSAGE on the screen, EVENT POPUP to full screen and EVENT BUZZER.

NOTE: When turning off the EVENT MESSAGE, your DVR doesn't display the characters of events. (Motion ? "M", Video Loss ? "V", Alarm ? "A", Text-In? "X")

NOTE: When turning on the EVENT POPUP, the event screen will be popped up to the full screen whenever being triggered.

AUDIO RECORD SETUP

Highlight the AUDIO RECORD SETUP in the main menu and press the enter button. The AUDIO RECORD SETUP screen appears.

AUDIO	CAMERA	RECORD +
1	1	OFF
2	2	OFF
3	3	OFF
4	4	OFF

VOLUME 7

SAVE CANCEL

Figure – AUDIO RECORD SETUP(AUDIO 4CHANNEL).

All audio channels can be recorded by selecting RECORD+ button at once and each individual channel also can be recorded by turning on each audio

Camera and Audio connection setup can be modified

CAMERA +	RECORD +
1	ON
2	ON
3	ON
4	ON

1 - 4 5 - 8 9 - 12 13 - 16

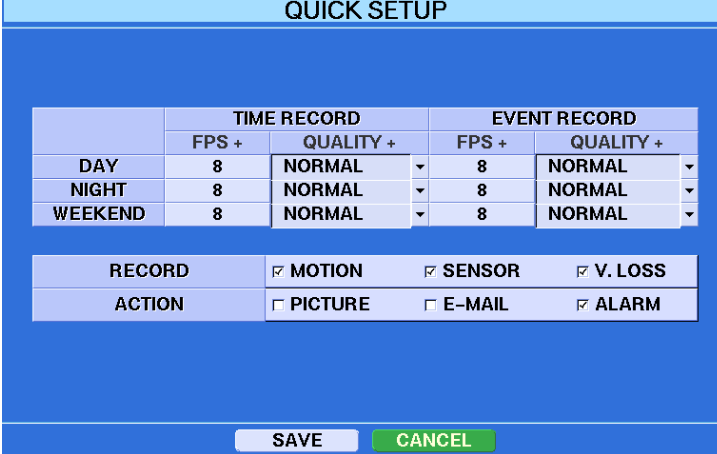
SAVE CANCEL

Figure – AUDIO RECORD SETUP(AUDIO 16CHANNEL).

All audio channels can be recorded by selecting RECORD+ button at once and each individual channel also can be recorded by turning on each audio

QUICK SETUP

Highlight the QUICK SETUP in the main menu and press the enter button. The QUICK SETUP screen appears.



The screenshot shows the 'QUICK SETUP' screen with a blue background. At the top, there is a title bar labeled 'QUICK SETUP'. Below it, there are two main sections: 'TIME RECORD' and 'EVENT RECORD'. Each section has a table with columns for 'FPS +' and 'QUALITY +'. The 'TIME RECORD' table has rows for 'DAY', 'NIGHT', and 'WEEKEND'. The 'EVENT RECORD' table has rows for 'DAY', 'NIGHT', and 'WEEKEND'. Below these tables, there are two rows of checkboxes: 'RECORD' and 'ACTION'. The 'RECORD' row has checkboxes for 'MOTION', 'SENSOR', and 'V. LOSS'. The 'ACTION' row has checkboxes for 'PICTURE', 'E-MAIL', and 'ALARM'. At the bottom, there are two buttons: 'SAVE' and 'CANCEL'.

TIME RECORD		EVENT RECORD		
	FPS +	QUALITY +	FPS +	QUALITY +
DAY	8	NORMAL	8	NORMAL
NIGHT	8	NORMAL	8	NORMAL
WEEKEND	8	NORMAL	8	NORMAL

RECORD	<input checked="" type="checkbox"/> MOTION	<input checked="" type="checkbox"/> SENSOR	<input checked="" type="checkbox"/> V. LOSS
ACTION	<input type="checkbox"/> PICTURE	<input type="checkbox"/> E-MAIL	<input checked="" type="checkbox"/> ALARM

SAVE CANCEL

Figure – QUICK STEUP

In quick setup, both fps and quality of time/event record can be configured. Event record, Event action can be also configured.

MANUAL RECORD SETUP

Highlight the MANUAL RECORD SETUP in the main menu and press the enter button. The MANUAL RECORD SETUP screen appears.

CAMERA +	SPEED +	QUALITY +
1	8	NORMAL
2	8	NORMAL
3	8	NORMAL
4	8	NORMAL

1 - 4 5 - 8 9 - 12 13 - 16

SAVE CANCEL

Figure – MANUAL RECORD STEUP

Through REC button users can modify MANUAL RECORD settings for recording.

6.4 Network Setting



Configuring Network Settings

Control communication related setting from DVR. It not only sets for commonly using Ethernet and PSTN, but also monitors the status of server from a remote site through the Client and E-mail setting.

ETHERNET SETUP

You can turn on or off the dynamic IP by highlighting the box beside the DYNAMIC IP and pressing the enter button.

The screenshot shows the 'ETHERNET SETUP' screen with a blue background. At the top, there is a light blue header bar with the text 'ETHERNET SETUP'. Below this, there are three rows of settings, each with a label on the left and a value on the right. The first row is 'DYNAMIC IP' with the value 'OFF'. The second row is 'HOST NAME' with the value 'dvr'. The third row is 'IP ADDRESS' with the value '192.168.1.10' and a small right-pointing arrow button to its right. Below these settings is a 'CHECK INTERNET' button. At the bottom, there are two buttons: 'SAVE' and 'CANCEL'.

ETHERNET SETUP	
DYNAMIC IP	OFF
HOST NAME	dvr
IP ADDRESS	192.168.1.10
CHECK INTERNET	
SAVE CANCEL	

Figure – ETHERNET SETUP(1).

When turning off the Dynamic IP, you can enter the static IP information by highlighting the sub-menu button(▶) and pressing the enter button. Refer to the screen below.

The screenshot shows the 'ETHERNET SETUP' screen with a blue background. At the top, there is a light blue header bar with the text 'ETHERNET SETUP'. Below this, there are five rows of settings, each with a label on the left and a value on the right. The first row is 'DYNAMIC IP' with the value 'OFF'. The second row is 'HOST NAME' with the value 'dvr'. The third row is 'IP ADDRESS' with the value '192.168.1.10' and a small green right-pointing arrow button to its right. The fourth row is 'SUBNET MASK' with the value '255.255.255.0'. The fifth row is 'GATEWAY' with the value '192.168.1.1'. The sixth row is 'DNS SERVER' with the value '0.0.0.0'. Below these settings is a 'CHECK INTERNET' button. At the bottom, there are two buttons: 'SAVE' and 'CANCEL'.

ETHERNET SETUP	
DYNAMIC IP	OFF
HOST NAME	dvr
IP ADDRESS	192.168.1.10
SUBNET MASK	255.255.255.0
GATEWAY	192.168.1.1
DNS SERVER	0.0.0.0
CHECK INTERNET	
SAVE CANCEL	

Figure – ETHERNET SETUP(2).

Enter the host name to the box beside HOST NAME by highlighting the box and pressing the enter button. The virtual keyboard will appear for typing.

You can save your changes and return to the main menu by highlighting SAVE and pressing the button. Selecting CANCEL exits the screen without saving the changes.

SERIAL SETUP

Select the SERIAL SETUP in the main menu and press the enter button. The SERIAL SETUP screen appears.

RS-232 SETUP

When pressing the down list menu button (▼) on the RS-232 SETUP, it will show NONE, MODEM, EXTERNAL CONTROLLER and TEXT-IN. Then, please select a proper RS-232 serial communication device that you want to use.

You can connect the RS-232 devices like external modem, external keyboard controller or POS (Point Of Sale) device to the RS-232 terminal on the back of the DVR by following the modem, keyboard or POS manufacturer's instructions.

The screenshot shows the 'SERIAL SETUP' menu. It contains two main sections: 'RS-232 SETUP' and 'RS-485 INPUT SETUP'. The 'RS-232 SETUP' section has three fields: 'SERIAL TYPE' (a dropdown menu currently showing 'EXTERNAL CONTROLLER'), 'MODEL' (a text field with 'NONE'), and 'PORT' (a text field with '9600-8N1'). The 'RS-485 INPUT SETUP' section has one field: 'SERIAL TYPE' (a dropdown menu currently showing 'NONE'). At the bottom of the screen are two buttons: 'SAVE' and 'CANCEL'.

SERIAL SETUP	
RS-232 SETUP	
SERIAL TYPE	EXTERNAL CONTROLLER ▼
MODEL	NONE
PORT	9600-8N1
RS-485 INPUT SETUP	
SERIAL TYPE	NONE ▼
SAVE CANCEL	

Figure – SERIAL SETUP(1).

You can connect the external modem to the RS232 terminal on the back of the DVR following the modem manufacturer's instructions. Reset the external modem and the modem will be activated.

When selecting External Controller or POS, your DVR will displays a list of controllable devices.

RS-485 INPUT SETUP

When pressing the down list menu button (▼) on the RS-485 INPUT SETUP, it will show NONE, EXTERNAL CONTROLLER and TEXT-IN. Then, please select a proper RS-485 serial communication device that you want to use.

You can connect the RS-485 devices like external keyboard controller or POS (Point Of Sale) device to the RS-485 terminal on the back of the DVR by following the keyboard or POS manufacturer's instructions.

The screenshot shows a blue-themed menu titled "SERIAL SETUP". It contains two main sections: "RS-232 SETUP" and "RS-485 INPUT SETUP".

RS-232 SETUP

SERIAL TYPE	NONE
-------------	------

RS-485 INPUT SETUP

SERIAL TYPE	EXTERNAL CONTROLLER
MODEL	NONE
PORT	9600-8N1

At the bottom of the menu are two buttons: "SAVE" and "CANCEL".

Figure – SERIAL SETUP(2).

You can connect the external modem to the RS232 terminal on the back of the DVR following the modem manufacturer's instructions. Reset the external modem and the modem will be activated.

When selecting External Controller or POS, your DVR will display a list of controllable devices.

DDNS SETUP

Highlight the DDNS SETUP in the main menu and press the enter button. The DDNS SETUP screen will be displayed.

DDNS SETUP	
DDNS SERVER	ddnsdvr.com ▼
HOST NAME	
USER NAME	
PASSWORD	****
ROUTER IP	OFF
STATUS	<input type="checkbox"/> UNCHECKED <input type="checkbox"/> CHECK
<input type="button" value="SAVE"/> <input type="button" value="CANCEL"/>	

Figure – DDNS SETUP.

When pressing the down list menu button (▼) on the DDNS Server heading, it will show ddnsdvr.com and dyndns.com. Please visit www.ddnsdvr.com or www.dyndns.com and open an account by following the instructions on the web-site. Then, please enter the Host Name, User Name, Password and Router Ip(on/off).

When selecting the boxes beside Host Name, User Name Password or Router Ip(on/off), the virtual keyboard will be popped up and you can type in.

After entering required information, please visit the domain address (ex. <http://secube.dyndns.org>) on the Internet Explorer. Then, the Web-browser client as shown below will appear on the Internet Explorer.



Figure – WEB CLIENT VIEWER.

Enter the ID and Password that you used for opening the account and setting up the server and press Connect button. It will allow you to access to the server.

CLIENT SETUP

Highlight the CLIENT SETUP in the main menu and press the enter button. The following CLIENT SETUP – CONNECT screen will appear.

CLIENT SETUP – CONNECT

SMS PORT (TCP)	7000
WEB PORT (TCP)	80
REMOTE RESTART	OFF
REMOTE CONFIGURATION	ON
MAX TRANSFER SPEED	100 Mbps

☒ CONNECT ☐ USER ACCOUNT ☐ ACCESS RANGE

SAVECANCEL

Figure – CLIENT SETUP – CONNECT.

CLIENT SETUP – USER ACCOUNT

	ID	PASSWORD	PLAYBACK	LIVE	PTZ
ADMIN 1	remote	****	ON	ON	ON
ADMIN 2	remote2	****	ON	ON	ON
USER 1	user1	****	OFF	ON	OFF
USER 2	user2	****	OFF	ON	OFF
USER 3	user3	****	OFF	ON	OFF
USER 4	user4	****	OFF	ON	OFF

☐ CONNECT ☒ USER ACCOUNT ☐ ACCESS RANGE

SAVECANCEL

Figure – CLIENT SETUP-USER ACCOUNT(1).

Enter the TCP Port for client connection. The default SMS port (TCP) is 7000 and 80 for Web Port (TCP).

You can select the remote restart or remote configuration by highlighting the side boxes and press the enter button.

Max transfer speed can be set from 50kbps up to 100Mbps.

Select the user account by highlighting the USER ACCOUNT and pressing the enter button. Refer to the Figure 96.

The DVR supports 2 admin Ids and 4 user Ids. Playback, live, ptz can be set for each user.

You can create new accounts by highlighting ADD button and pressing the enter button. Type the new account by using the virtual keyboard. When saving a new account, the password screen will appear. Type the password for the new account. The confirm screen will appear. Retype the password. Refer to the Figure 97 and 98.

CLIENT SETUP – USER ACCOUNT

	ID	PASSWORD	PLAYBACK	LIVE	PTZ
ADMIN 1	remote	****	ON	ON	ON
USER 1	user1	****	OFF	ON	OFF
USER 2	user2	****	OFF	ON	OFF
USER 3	user3	****	OFF	ON	OFF
USER 4	user4	****	OFF	ON	OFF
USER 5	user5	****	OFF	ON	OFF

☐ CONNECT ☒ USER ACCOUNT ☐ ACCESS RANGE

SAVECANCEL

Figure – CLIENT SETUP-USER ACCOUNT(2).

CLIENT SETUP – USER ACCOUNT

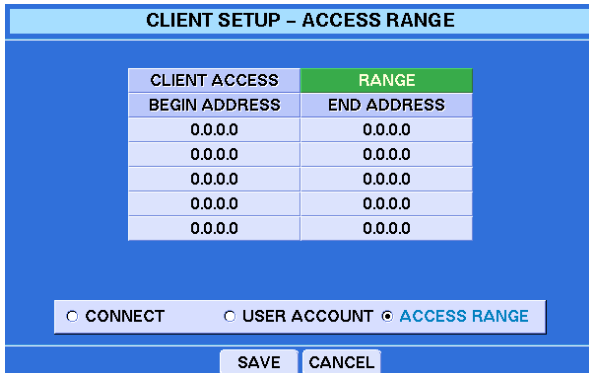
	ID	PASSWORD	PLAYBACK	LIVE	PTZ
ADMIN 1	re				
ADMIN 2	re				
USER 1	u	****			
USER 2	u				
USER 3	u				
USER 4	u				

☐ CONNECT ☒ USER ACCOUNT ☐ ACCESS RANGE

SAVECANCEL

Figure – CLIENT SETUP-USER ACCOUNT(3).

Highlight the ACCESS RANGE in the CLIENT SETUP menu to define the IP access range to the client.

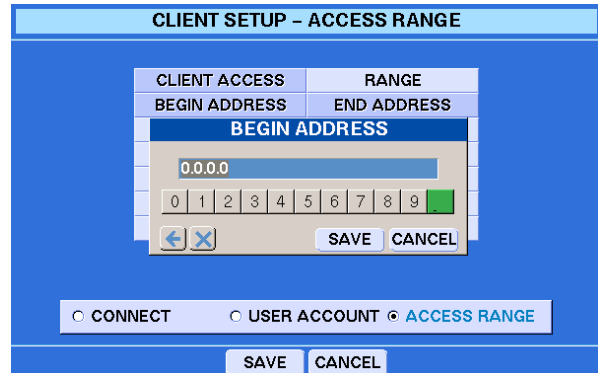


CLIENT SETUP - ACCESS RANGE

CLIENT ACCESS	RANGE
BEGIN ADDRESS	END ADDRESS
0.0.0.0	0.0.0.0
0.0.0.0	0.0.0.0
0.0.0.0	0.0.0.0
0.0.0.0	0.0.0.0
0.0.0.0	0.0.0.0

☐ CONNECT ☐ USER ACCOUNT ☒ ACCESS RANGE

SAVE CANCEL



CLIENT SETUP - ACCESS RANGE

CLIENT ACCESS	RANGE
BEGIN ADDRESS	END ADDRESS
0.0.0.0	0.0.0.0
0.0.0.0	0.0.0.0
0.0.0.0	0.0.0.0
0.0.0.0	0.0.0.0
0.0.0.0	0.0.0.0

BEGIN ADDRESS

0.0.0.0

0 1 2 3 4 5 6 7 8 9

SAVE CANCEL

☐ CONNECT ☐ USER ACCOUNT ☒ ACCESS RANGE

SAVE CANCEL

Figure – CLIENT SETUP-ACCESS RANGE(1).

Figure – CLIENT SETUP-ACCESS RANGE(2).

When an IP address is not in the access range, the IP address can't access the server and the default range is ALL.

NOTE: The default range, ALL is allowing any IP address to access the DVR.

E-MAIL SETUP

Your DVR can notify any event to assigned e-mail addresses and you can set up e-mail addresses up to 6.

Highlight the E-MAIL SETUP in the main menu and press the enter button. The following E-MAIL NOTIFICATION screen will appear

E-MAIL SETUP

SEND E-MAIL		FROM		TO	
ON		00:00:00		23:59:59	
E-MAIL	SEND +	CAM +	RETRY +	PIC +	E-MAIL ADDRESS
1	OFF	OFF	1	OFF	email@ddnsdvr.com
2	OFF	OFF	1	OFF	email@ddnsdvr.com
3	OFF	OFF	1	OFF	email@ddnsdvr.com
4	OFF	OFF	1	OFF	email@ddnsdvr.com
5	OFF	OFF	1	OFF	email@ddnsdvr.com
6	OFF	OFF	1	OFF	email@ddnsdvr.com

SAVECANCEL

Figure – E-MAIL SETUP(1).

E-MAIL SETUP

E-MAIL : 1

SEND E-MAIL		FROM		TO	
ON		00:00:00		23:59:59	
E-MAIL	SEND +			E-MAIL ADDRESS	
1	OFF			mail@ddnsdvr.com	
2	OFF			mail@ddnsdvr.com	
3	OFF			mail@ddnsdvr.com	
4	OFF			mail@ddnsdvr.com	
5	OFF			mail@ddnsdvr.com	
6	OFF			mail@ddnsdvr.com	

SAVECANCEL

☐ MOTION

☐ ALARM IN

☐ VIDEO LOSS

☐ TEXT-IN

☐ POWER

☐ MENU

☐ LOGIN FAIL

☐ DISK FULL

☐ LOG IN

☐ S.M.A.R.T.

OKCANCEL

Figure – E-MAIL SETUP(2).

You can associate events for the e-mail notification. Highlight the box below SEND+ and press the enter button. The event list will appear. Refer to the Figure 101. Also, you can select cameras for emailing as in Figure 102. Your DVR will notify events for the selected cameras only.

You can set up the trial time for e-mailing.

You can type the e-mail addresses you want to assign by using the virtual keyboard. Refer to the Figure 104 below.

E-MAIL SETUP

SEND E-MAIL		FROM		TO	
ON		00:00:00		23:59:59	
E-MAIL	SEND +	CAM +	RETRY +	PIC +	E-MAIL ADDRESS
1	OFF	OFF	1	OFF	vr.com
2	OFF	OFF	1	OFF	vr.com
3	OFF	OFF	1	OFF	vr.com
4	OFF	OFF	1	OFF	vr.com
5	OFF	OFF	1	OFF	email@ddnsdvr.com
6	OFF	OFF	1	OFF	email@ddnsdvr.com

SAVECANCEL

CAMERA

☐ ALL

☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8

☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16

OKCANCEL

Figure – E-MAIL SETUP(3).

E-MAIL SETUP

SEND E-MAIL		FROM		TO	
ON		00:00:00		00:00:00	
email@ddnsdvr.com					
email@ddnsdvr.com					
email@ddnsdvr.com					
email@ddnsdvr.com					
email@ddnsdvr.com					
email@ddnsdvr.com					

SAVECANCEL

email@ddnsdvr.com

a b c d e f g h i j 1 2 3

k l m n o p q r s t 4 5 6

u v w x y z - _ @ + 7 8 9

↑ ↓ ← → Space ^ & : / # * 0 .

OKCANCEL

Figure – E-MAIL SETUP(4).

E-MAIL SERVER SETUP

The screenshot shows the 'EMAIL SERVER SETUP' window. It has a blue header and a blue background. A dropdown menu labeled 'MAIL SERVER' is open, showing two options: 'DVR SYSTEM' and 'SMTP SERVER'. At the bottom, there are 'SAVE' and 'CANCEL' buttons.

Figure – E-MAIL SEVER SETUP(1).

The screenshot shows the 'EMAIL SERVER SETUP' window with the 'SMTP SERVER' option selected. The configuration fields are as follows:

MAIL SERVER	SMTP SERVER
USER NAME	userName
USER E-MAIL	email@ddnsdvr.com
SERVER ADDRESS	ddnsdvr.com
SERVER PORT	25
LOGIN ID	userId
LOGIN PASSWORD	****

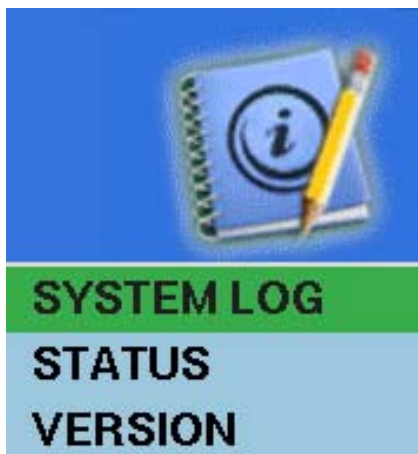
At the bottom, there are 'SAVE' and 'CANCEL' buttons.

Figure – E-MAIL SERVER SETUP(2).

When DVR system is selected, e-mail is sent directly to the specified e-mail address.

When SMTP server is selected, e-mail is sent to a SMTP server and then sent to the specified e-mail address

6.5 SYSTEM INFORMATION



Checking System Information

You can check the system log, status and version information.

SYSTEM LOG

You can check the system log by selecting the SYSTEM LOG in the main menu. The below screen will show up.

SYSTEM LOG		
NO.	DATE	SYSTEM LOG
92	7/21 00:12:52	Logout
91	7/21 00:01:37	Event Setup Changed
90	7/21 00:01:17	Event Setup Changed
89	7/21 00:00:00	Recording Stop
88	7/20 23:58:56	Schedule Setup Changed
87	7/20 23:58:45	Check HDD-0
86	7/20 11:04:09	Locale Changed
85	7/20 11:04:09	Time Changed 05/7/20 23:58:44
84	7/20 11:04:08	General Setup Changed
83	7/20 11:03:37	Event Setup Changed
82	7/20 11:03:13	Schedule Setup Changed
81	7/20 11:02:40	Event Setup Changed

1 2 3 4 5 PREV NEXT

EXIT

Figure – SYSTEM LOG.

You can move to the previous page or next pages by pressing PREV or NEXT button in the SYSTEM LOG menu.

STATUS

You can check the status of the DVR by selecting STATUS from the Top Live Cameo Menu. The status screen displays Record, Event, Network, Alarm, Disk and Key information.

STATUS					
<input checked="" type="radio"/> DAY <input type="radio"/> NIGHT <input type="radio"/> WEEKEND					
CH	VIDEO	A	CH	VIDEO	A
1	8/0,STD,NORMAL	ON	9	8/0,STD,NORMAL	ON
2	8/0,STD,NORMAL	ON	10	8/0,STD,NORMAL	ON
3	8/0,STD,NORMAL	ON	11	8/0,STD,NORMAL	ON
4	8/0,STD,NORMAL	ON	12	8/0,STD,NORMAL	ON
5	8/0,STD,NORMAL	ON	13	8/0,STD,NORMAL	ON
6	8/0,STD,NORMAL	ON	14	8/0,STD,NORMAL	ON
7	8/0,STD,NORMAL	ON	15	8/0,STD,NORMAL	ON
8	8/0,STD,NORMAL	ON	16	8/0,STD,NORMAL	ON
VIDEO : FPS(TIME / EVENT) RESOLUTION QUALITY					
<input checked="" type="radio"/> RECORD <input type="radio"/> EVENT <input type="radio"/> NETWORK <input type="radio"/> ALARM <input type="radio"/> DISK <input type="radio"/> KEY					
EXIT					

Figure – STATUS (1)

STATUS					
CH	INPUT	ACTION	CH	INPUT	ACTION
1	NONE	NONE	9	NONE	NONE
2	NONE	NONE	10	NONE	NONE
3	NONE	NONE	11	NONE	NONE
4	NONE	NONE	12	NONE	NONE
5	NONE	NONE	13	NONE	NONE
6	NONE	NONE	14	NONE	NONE
7	NONE	NONE	15	NONE	NONE
8	NONE	NONE	16	NONE	NONE
EVENT INPUT M : MOTION A : ALARM-IN V : VIDEO LOSS X : TEXT-IN EVENT ACTION A : ALARM-OUT I : IMAGE TO REMOTE P : PTZ PRESET					
<input type="radio"/> RECORD <input checked="" type="radio"/> EVENT <input type="radio"/> NETWORK <input type="radio"/> ALARM <input type="radio"/> DISK <input type="radio"/> KEY					
EXIT					

Figure 110 – STATUS (2)

In record, fps and quality of currently recording time/event record of each channel can be checked .
In event, you can see the status information about event input and event action.

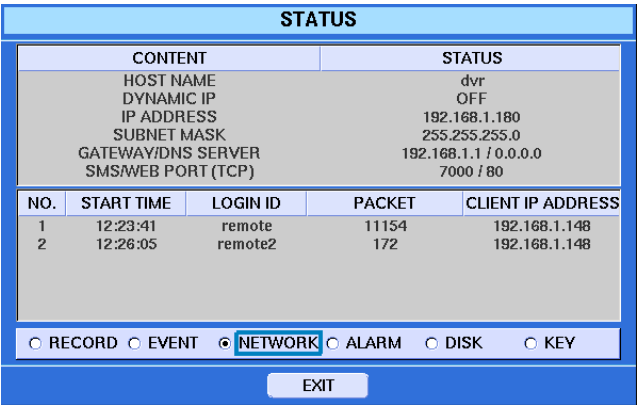


Figure – STATUS (3).

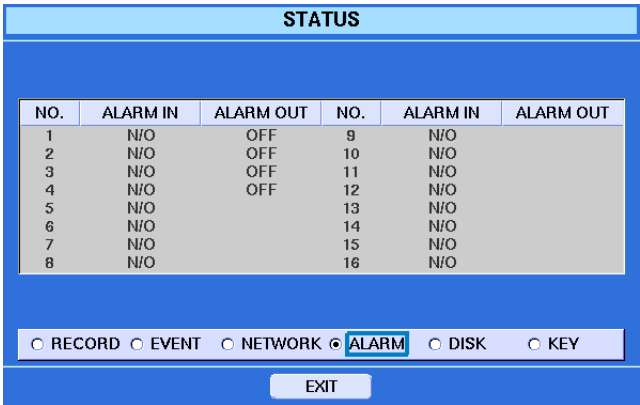


Figure – STATUS (4).

In network, connection time, Id, transferred packet size and ip of currently connected clients can be checked. Alarm shows the status of Alarm in and Alarm output

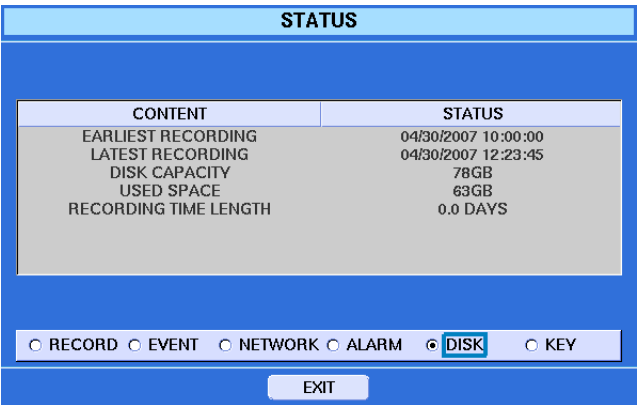


Figure – STATUS (5).

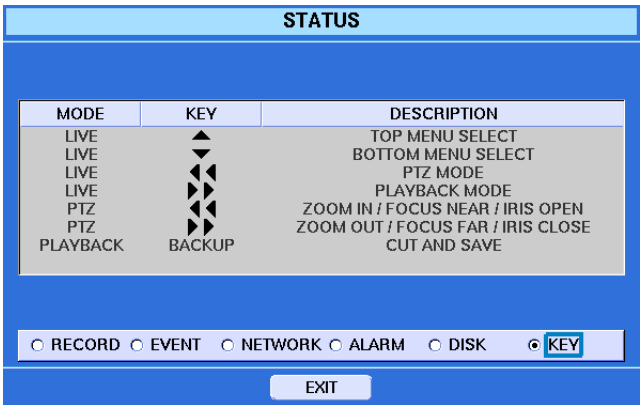


Figure – STATUS (6).

Disk shows earlist recording time, latest recording time, disk capacity, used space and remaining recordable time length. Key shows descriptions about keys and repeated keys.

VERSION

You can check the version of your DVR in the VERSION menu. Refer to the screen below. The VERSION screen will display the version information.

VERSION	
CONTENT	VERSION
SYSTEM	VIDEO 16CH 480IPS, AUDIO 16CH
VIDEO FORMAT	NTSC
DVR PROGRAM	2.04.05
PRODUCT. DATE	Nov 28 2008, 10:35
HOST ID	AFAS--0DC832
MAC ADDRESS	00:1F:C6:0D:C8:32
EXIT	

Figure – VERSION.

Appendix A – Reviewing Backup (Clip) Images

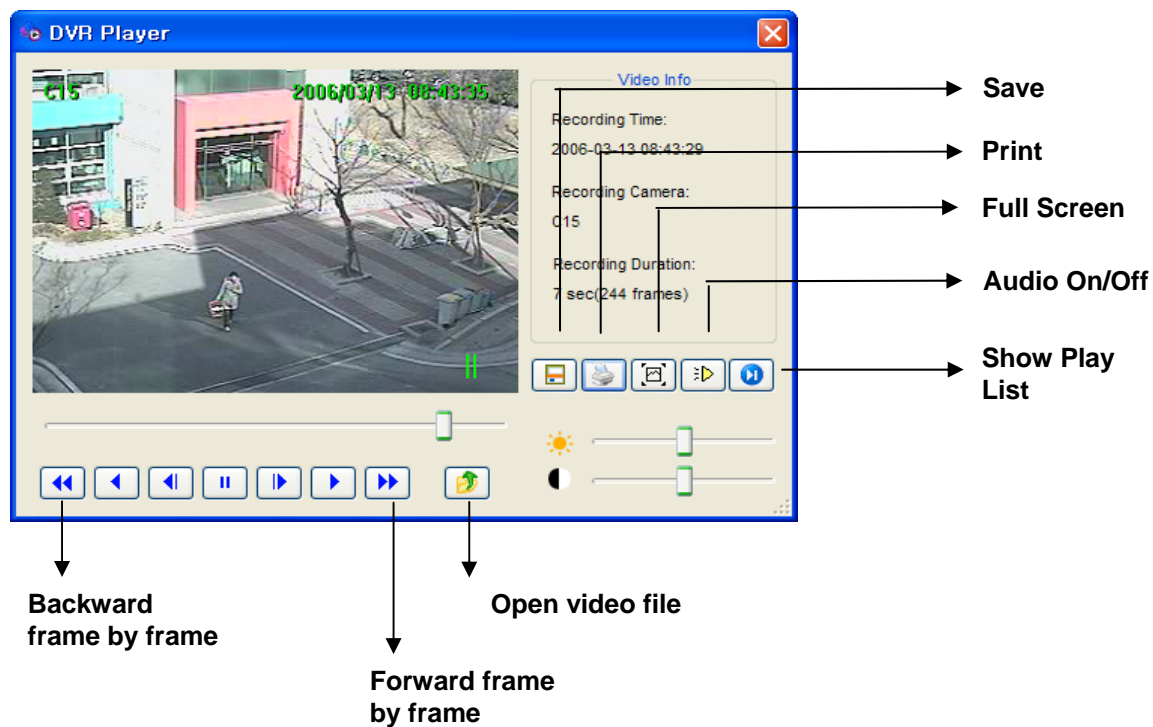


Figure – DVR MINI PLAYER.

Your DVR will download the Mini Player with the backup files automatically. You can play the backup files with the DVR Mini Player on your PC and convert the files to .JPG or .AVI format.

Appendix B – How to use the virtual keyboard



Figure – VIRTUAL KEYBOARD.

You will be using the virtual keyboard when setting up the DVR. Highlight the button and press the enter button to enter.

The ↑ button will switch the page to the 2nd page showing Capital letters, the ← button is deleting and X button is clearing.

Appendix C – Using Hot Keys

Smart Playback:

Press the down arrow button (▼) when playing back video. In the Smart Playback mode, your DVR will play back the recorded video that has motions only.

Panorama Playback:

Press the UP arrow button (▲) in a single channel playback.

NOTE: The Panorama playback can be entered in single channel screen only. You can change the screen to 2x2, 3x3, 4x4 formats by pressing the Display button in the Panorama mode.

Audio Playback:

Press the Log-out button when playing back video that has recorded audio. The audio control menu will be displayed.

Cut & Save:

BACKUP → BACKUP → BACKUP. You can set up the start time by pressing the Backup button first time and set up the end time by pressing the Backup button again. Press the Backup button once more. Then, Backup menu screen will be displayed.

Go to Time Search:

Press the SEARCH button while playing back.

Appendix D - Troubleshooting

Problem	Possible Solution
No Power	<ul style="list-style-type: none">• Check power cord connections.• Check power at the outlet.
No Live Video	<ul style="list-style-type: none">• Check camera video cable and connections.• Check monitor video cable and connections.• Check camera power.• Check camera lens settings.
Live Video Too Bright	If a cable is attached to the “Loop” connector, make sure that it is properly terminated.
Mouse is not working	Press the FREEZE to reset the mouse.
DVR has stopped recording	If hard disk is full, you will either need to delete video or set the DVR to the Overwrite Mode.

Appendix E – Specifications

AT-A1600		Basic Specification
Video	Inputs	<ul style="list-style-type: none"> • 16 Channel composite videos
	Outputs	<ul style="list-style-type: none"> • CCTV Monitor (NTSC/PAL), • CRT(VGA) Monitor • 3 Spot CCTV Monitor(NTSC/PAL) • 16 Channel loop out • VGA Resolution : 800x600 / 1024 x 768 / 1280x1024 / 1280x768 / 1366x768 60Hz
Monitoring	Display/Screen Split	<ul style="list-style-type: none"> • NTSC : 480fps PAL : 400fps • 1 / 4 / 7 / 9 / 10 / 13 / 16 splits
Recording	Performance	<ul style="list-style-type: none"> • NTSC : CIF(480fps), HVGA(240fps), VGA(120fps) • PAL : CIF(400fps), HVGA(200fps), VGA(100fps)
	Resolution	<ul style="list-style-type: none"> • NTSC : CIF(336x224), HVGA(672x224), VGA(672x448) • PAL : CIF(336x272), HVGA(672x272), VGA(672x544)
	Compression	<ul style="list-style-type: none"> • Enhanced MPEG-4
	Mode	<ul style="list-style-type: none"> • Motion detection, Sensor, Schedule • Variable compression rates, recording frame, motion sensitivity
	Storage media	<ul style="list-style-type: none"> • Internal 4 x SATAII Type HDD (Option) • CD-RW or DVD-RW or Removal HDD (Option)
	Audio	<ul style="list-style-type: none"> • 4 Channel/ 16 Channel Extended(Option) , PCM-64Kbps
Playback	Mode	<ul style="list-style-type: none"> • Multi-channel playback(Max 16ch), Simultaneous/Panorama/Smart playback
	Searching	<ul style="list-style-type: none"> • By Channel, Time, Date, Motion detection, Sensor events
Remote Monitoring S/W		<ul style="list-style-type: none"> • Server Management Software (SMS) / Web based viewer • 10/100/1000 Mbps Ethernet
Alarm/Sensor		<ul style="list-style-type: none"> • 4/16
Camera Control		<ul style="list-style-type: none"> • Pan/Tilt, Zoom, Focus, Iris
Back-up		<ul style="list-style-type: none"> • Through External USB 2.0 Ports(Memory Stick, HDD, CD R/W) • Removal HDD, CD-RW / DVD-RW • Remote S/W
HardwareSpec.	Features	<ul style="list-style-type: none"> • 350(W) x 400(D) x 88(H) : 2U Rack Mount Kit / • 11 kg • Max.35Watt, 90~264(47Hz~63Hz) Without HDD

Appendix E – Specifications

ST-A1600		Basic Specification
Video	Inputs	<ul style="list-style-type: none"> • 16 Channel composite videos
	Outputs	<ul style="list-style-type: none"> • CCTV Monitor (NTSC/PAL), • CRT(VGA) Monitor • 3 Spot CCTV Monitor(NTSC/PAL) • 16 Channel loop out • VGA Resolution : 800x600 / 1024 x 768 / 1280x1024 / 1280x768 / 1366x768 60Hz
Monitoring	Display/Screen Split	<ul style="list-style-type: none"> • NTSC : 480fps PAL : 400fps • 1 / 4 / 7 / 9 / 10 / 13 / 16 splits
Recording	Performance	<ul style="list-style-type: none"> • NTSC : CIF(240fps), HVGA(120fps), VGA(60fps) • PAL : CIF(200fps), HVGA(100fps), VGA(50fps)
	Resolution	<ul style="list-style-type: none"> • NTSC : CIF(336x224), HVGA(672x224), VGA(672x448) • PAL : CIF(336x272), HVGA(672x272), VGA(672x544)
	Compression	<ul style="list-style-type: none"> • Enhanced MPEG-4
	Mode	<ul style="list-style-type: none"> • Motion detection, Sensor, Schedule • Variable compression rates, recording frame, motion sensitivity
	Storage media	<ul style="list-style-type: none"> • Internal 4 x SATAII Type HDD (Option) • CD-RW or DVD-RW or Removal HDD (Option)
	Audio	<ul style="list-style-type: none"> • 4 Channel/ 16 Channel Extended(Option) , PCM-64Kbps
Playback	Mode	<ul style="list-style-type: none"> • Multi-channel playback(Max 16ch), Simultaneous/Panorama/Smart playback
	Searching	<ul style="list-style-type: none"> • By Channel, Time, Date, Motion detection, Sensor events
Remote Monitoring S/W		<ul style="list-style-type: none"> • Server Management Software (SMS) / Web based viewer • 10/100/1000 Mbps Ethernet
Alarm/Sensor		<ul style="list-style-type: none"> • 4/16
Camera Control		<ul style="list-style-type: none"> • Pan/Tilt, Zoom, Focus, Iris
Back-up		<ul style="list-style-type: none"> • Through External USB 2.0 Ports(Memory Stick, HDD, CD R/W) • Removal HDD, CD-RW / DVD-RW • Remote S/W
Hardware Spec.	Features	<ul style="list-style-type: none"> • 350(W) x 400(D) x 88(H) : 2U Rack Mount Kit / • 11 kg • Max.35Watt, 90~264(47Hz~63Hz) Without HDD

Appendix E – Specifications

ST-A800		Basic Specification
Video	Inputs	<ul style="list-style-type: none"> • 8 Channel composite videos
	Outputs	<ul style="list-style-type: none"> • CCTV Monitor (NTSC/PAL), • CRT(VGA) Monitor • 1 Spot CCTV Monitor(NTSC/PAL) • 8 Channel loop out • VGA Resolution : 800x600 / 1024 x 768 / 1280x1024 / 1280x768 / 1366x768 60Hz
Monitoring	Display/Screen Split	<ul style="list-style-type: none"> • NTSC : 240fps PAL : 200fps • 1 / 4 / 9 splits
Recording	Performance	<ul style="list-style-type: none"> • NTSC : CIF(240fps), HVGA(120fps), VGA(60fps) • PAL : CIF(200fps), HVGA(100fps), VGA(50fps)
	Resolution	<ul style="list-style-type: none"> • NTSC : CIF(336x224), HVGA(672x224), VGA(672x448) • PAL : CIF(336x272), HVGA(672x272), VGA(672x544)
	Compression	<ul style="list-style-type: none"> • Enhanced MPEG-4
	Mode	<ul style="list-style-type: none"> • Motion detection, Sensor, Schedule • Variable compression rates, recording frame, motion sensitivity
	Storage media	<ul style="list-style-type: none"> • Internal 4 x SATAII Type HDD (Option) • CD-RW or DVD-RW or Removal HDD (Option)
	Audio	<ul style="list-style-type: none"> • 4 Channel, PCM-64Kbps
Playback	Mode	<ul style="list-style-type: none"> • Multi-channel playback(Max 8ch), Simultaneous/Panorama/Smart playback
	Searching	<ul style="list-style-type: none"> • By Channel, Time, Date, Motion detection, Sensor events
Remote Monitoring S/W		<ul style="list-style-type: none"> • Server Management Software (SMS) / Web based viewer • 10/100/1000 Mbps Ethernet
Alarm/Sensor		<ul style="list-style-type: none"> • 1/8
Camera Control		<ul style="list-style-type: none"> • Pan/Tilt, Zoom, Focus, Iris
Back-up		<ul style="list-style-type: none"> • Through External USB 2.0 Ports(Memory Stick, HDD, CD R/W) • Removal HDD, CD-RW / DVD-RW • Remote S/W
HardwareSpec.	Features	<ul style="list-style-type: none"> • 350(W) x 400(D) x 88(H) : 2U Rack Mount Kit / • 11 kg • Max.35Watt, 90~264(47Hz~63Hz) Without HDD

Appendix E – Specifications

ST-A400		Basic Specification
Video	Inputs	<ul style="list-style-type: none"> • 4 Channel composite videos
	Outputs	<ul style="list-style-type: none"> • CCTV Monitor (NTSC/PAL), • CRT(VGA) Monitor • 1 Spot CCTV Monitor(NTSC/PAL) • 4 Channel loop out • VGA Resolution : 800x600 / 1024 x 768 / 1280x1024 / 1280x768 / 1366x768 60Hz
Monitoring	Display/Screen Split	<ul style="list-style-type: none"> • NTSC : 120fps PAL : 100fps • 1 / 4 splits
Recording	Performance	<ul style="list-style-type: none"> • NTSC : CIF(120fps), HVGA(120fps), VGA(60fps) • PAL : CIF(100fps), HVGA(100fps), VGA(50fps)
	Resolution	<ul style="list-style-type: none"> • NTSC : CIF(336x224), HVGA(672x224), VGA(672x448) • PAL : CIF(336x272), HVGA(672x272), VGA(672x544)
	Compression	<ul style="list-style-type: none"> • Enhanced MPEG-4
	Mode	<ul style="list-style-type: none"> • Motion detection, Sensor, Schedule • Variable compression rates, recording frame, motion sensitivity
	Storage media	<ul style="list-style-type: none"> • Internal 4 x SATAII Type HDD (Option) • CD-RW or DVD-RW or Removal HDD (Option)
	Audio	<ul style="list-style-type: none"> • 4 Channel, PCM-64Kbps
Playback	Mode	<ul style="list-style-type: none"> • Multi-channel playback(Max 4ch), Simultaneous/Panorama/Smart playback
	Searching	<ul style="list-style-type: none"> • By Channel, Time, Date, Motion detection, Sensor events
Remote Monitoring S/W		<ul style="list-style-type: none"> • Server Management Software (SMS) / Web based viewer • 10/100/1000 Mbps Ethernet
Alarm/Sensor		<ul style="list-style-type: none"> • 1/4
Camera Control		<ul style="list-style-type: none"> • Pan/Tilt, Zoom, Focus, Iris
Back-up		<ul style="list-style-type: none"> • Through External USB 2.0 Ports(Memory Stick, HDD, CD R/W) • Removal HDD, CD-RW / DVD-RW • Remote S/W
HardwareSpec.	Features	<ul style="list-style-type: none"> • 350(W) x 400(D) x 88(H) : 2U Rack Mount Kit / • 11 kg • Max.35Watt, 90~264(47Hz~63Hz) Without HDD

Appendix E – Specifications

ST-S800		Basic Specification
Video	Inputs	<ul style="list-style-type: none"> • 8 Channel composite videos
	Outputs	<ul style="list-style-type: none"> • CCTV Monitor (NTSC/PAL), • CRT(VGA) Monitor • 1 Spot CCTV Monitor(NTSC/PAL) • VGA Resolution : 800x600 / 1024 x 768 / 1280x1024 / 1280x768 / 1366x768 60Hz
Monitoring	Display/Screen Split	<ul style="list-style-type: none"> • NTSC : 240fps PAL : 200fps • 1 / 4 / 9 splits
Recording	Performance	<ul style="list-style-type: none"> • NTSC : CIF(240fps), HVGA(120fps), VGA(60fps) • PAL : CIF(200fps), HVGA(100fps), VGA(50fps)
	Resolution	<ul style="list-style-type: none"> • NTSC : CIF(336x224), HVGA(672x224), VGA(672x448) • PAL : CIF(336x272), HVGA(672x272), VGA(672x544)
	Compression	<ul style="list-style-type: none"> • Enhanced MPEG-4
	Mode	<ul style="list-style-type: none"> • Motion detection, Sensor, Schedule • Variable compression rates, recording frame, motion sensitivity
	Storage media	<ul style="list-style-type: none"> • Internal Max. 2 x SATAII Type HDD (Option)
	Audio	<ul style="list-style-type: none"> • 4 Channel, ADPCM-32Kbps
Playback	Mode	<ul style="list-style-type: none"> • Multi-channel playback(Max 8ch), Simultaneous/Panorama/Smart playback
	Searching	<ul style="list-style-type: none"> • By Channel, Time, Date, Motion detection, Sensor events
Remote Monitoring S/W		<ul style="list-style-type: none"> • Server Management Software (SMS) / Web based viewer • 10/100/1000 Mbps Ethernet
Alarm/Sensor		<ul style="list-style-type: none"> • 1/8
Camera Control		<ul style="list-style-type: none"> • Pan/Tilt, Zoom, Focus, Iris
Back-up		<ul style="list-style-type: none"> • Through External USB 2.0 Ports(Memory Stick, HDD, CD R/W) • Remote S/W
HardwareSpec.	Features	<ul style="list-style-type: none"> • 350(W) x 258(D) x70(H) : / • 4kg • Max.25Watt, 90~264(47Hz~63Hz) Without HDD

Appendix E – Specifications

ST-S400		Basic Specification
Video	Inputs	<ul style="list-style-type: none"> • 4 Channel composite videos
	Outputs	<ul style="list-style-type: none"> • CCTV Monitor (NTSC/PAL), • CRT(VGA) Monitor • 1 Spot CCTV Monitor(NTSC/PAL) • VGA Resolution : 800x600 / 1024 x 768 / 1280x1024 / 1280x768 / 1366x768 60Hz
Monitoring	Display/Screen Split	<ul style="list-style-type: none"> • NTSC : 120fps PAL : 100fps • 1 / 4 splits
Recording	Performance	<ul style="list-style-type: none"> • NTSC : CIF(120fps), HVGA(120fps), VGA(60fps) • PAL : CIF(100fps), HVGA(100fps), VGA(50fps)
	Resolution	<ul style="list-style-type: none"> • NTSC : CIF(336x224), HVGA(672x224), VGA(672x448) • PAL : CIF(336x272), HVGA(672x272), VGA(672x544)
	Compression	<ul style="list-style-type: none"> • Enhanced MPEG-4
	Mode	<ul style="list-style-type: none"> • Motion detection, Sensor, Schedule • Variable compression rates, recording frame, motion sensitivity
	Storage media	<ul style="list-style-type: none"> • Internal Max. 2 x SATAII Type HDD (Option)
	Audio	<ul style="list-style-type: none"> • 4 Channel, ADPCM-32Kbps
Playback	Mode	<ul style="list-style-type: none"> • Multi-channel playback(Max 4ch), Simultaneous/Panorama/Smart playback
	Searching	<ul style="list-style-type: none"> • By Channel, Time, Date, Motion detection, Sensor events
Remote Monitoring S/W		<ul style="list-style-type: none"> • Server Management Software (SMS) / Web based viewer • 10/100/1000 Mbps Ethernet
Alarm/Sensor		<ul style="list-style-type: none"> • 1/4
Camera Control		<ul style="list-style-type: none"> • Pan/Tilt, Zoom, Focus, Iris
Back-up		<ul style="list-style-type: none"> • Through External USB 2.0 Ports(Memory Stick, HDD, CD R/W) • Remote S/W
HardwareSpec.	Features	<ul style="list-style-type: none"> • 350(W) x 258(D) x70(H) : / • 4kg • Max.25Watt, 90~264(47Hz~63Hz) Without HDD

Appendix F – DVR FAQ

General

Q. What does Embedded Linux mean?

A. Embedded Linux means that the operating system of the DVR has been implanted into the CPU (Central Processing Unit). This means that the system response time is faster, more stable, and that the core of the DVR is never affected by external factors, such as virus, hacking, and system failure due to hard drive abnormalities.

Q. Is the DVR up-gradable by CD or network ?

A. Yes.

Q. How can I reset DVR to the factory default setting?

A. Load the factory default setting from CONFIG menu.

Live Monitoring

Q. Is it possible to have Live screen monitoring with specific cameras?

A. You can set the camera sequence through CAMEO swap.

Recording

Q. How do you record?

A. Using the Time Record and Event Record from RECORD menu, or Default Record button allows you to record.

Q. What is Time Recording?

A. It is recording that is not related to event recording.

Q. What does that Event mean?

A. That means Motion, Alarm In, Video-loss event activity.

Q. What is Event Recording?

A. It only records when the event occurs.

Searching & Playing Video

Q. How to playback the video?

A. Search time and event to playback from Search menu.

Q. Is it possible to view Live screen during the playback?

A. It is possible to see using Live Cam Change from CAMEO Menu during the playback.

Q. Is it possible to copy the wanted section of video during the playback?

A. Yes, select starting and ending time with Spot key, then using the Backup key to save.

Backup

Q. Is it possible to backup to DVD media?

A. Yes, if you have DVD-RW installed in your DVR.

Q. Can USB memory stick be used?

A. Yes.

Network

Q. Does it support dynamic IP?

A. Yes. Turn on the Dynamic IP from Ethernet Setup allows you to use it.

Q. Mail is not sent out.

A. Please check all the setting in Ethernet Setup.

Miscellaneous

Q. Is it possible to use either mouse, joystick or keyboard through the USB port?

A. Mouse inputs device and memory sticks are supported as the primary device.

Q. What types of cameras can be used?

A. NTSC or PAL system cameras are OK to use.

Appendix G – PSTN Modem Setting

Follow the Steps :

1. Control Panel → Network Connection → Create New Connection
2. Select the Internet Connection for Networking
3. Select the manual connection while in preparation.
Click **Next** button
4. Select telephone MODEM for the Internet connection.
Click **Next** button
5. Name setting for the connection. Click
Next button
6. Enter telephone number connected to DVR.
Click **Next** button
7. User ID is ppp and no password for the Internet account user.
The following option can be set with your own discretion. Click
Next button
8. Connection Wizard completes. Click
Finish button
9. Click the short cut DVR of desktop.
Do not save User ID and Password for other user.
Enter the password (**pppsetup**) on each connection.
10. Set Run Script to “**Generic Login**” in Security Tab in
DVR Property
11. After step 10, type in **ID : ppp/ Password : pppsetup**
to connect to DVR. If you set Modem's setting correctly
and get only dialing tone then you will see the following
picture. The DVR is receive-mode now.
12. Check if connection to DVR is ok

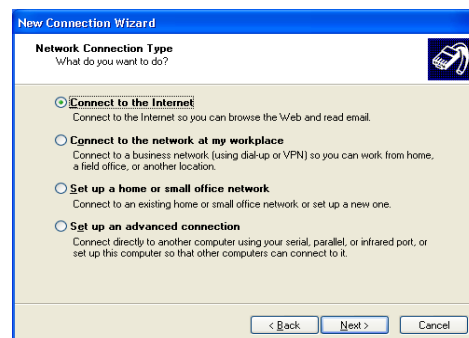


Figure .Step 1 ~ 8



Figure. Step 9 ~ 12

* Windows Styles or looks may look different from the picture above due to the different OS versions.

